

# Country Women

## FARMING WOMEN

THEME:  
The Natural Life?  
Belonging to the Land  
Breaching the Barrier



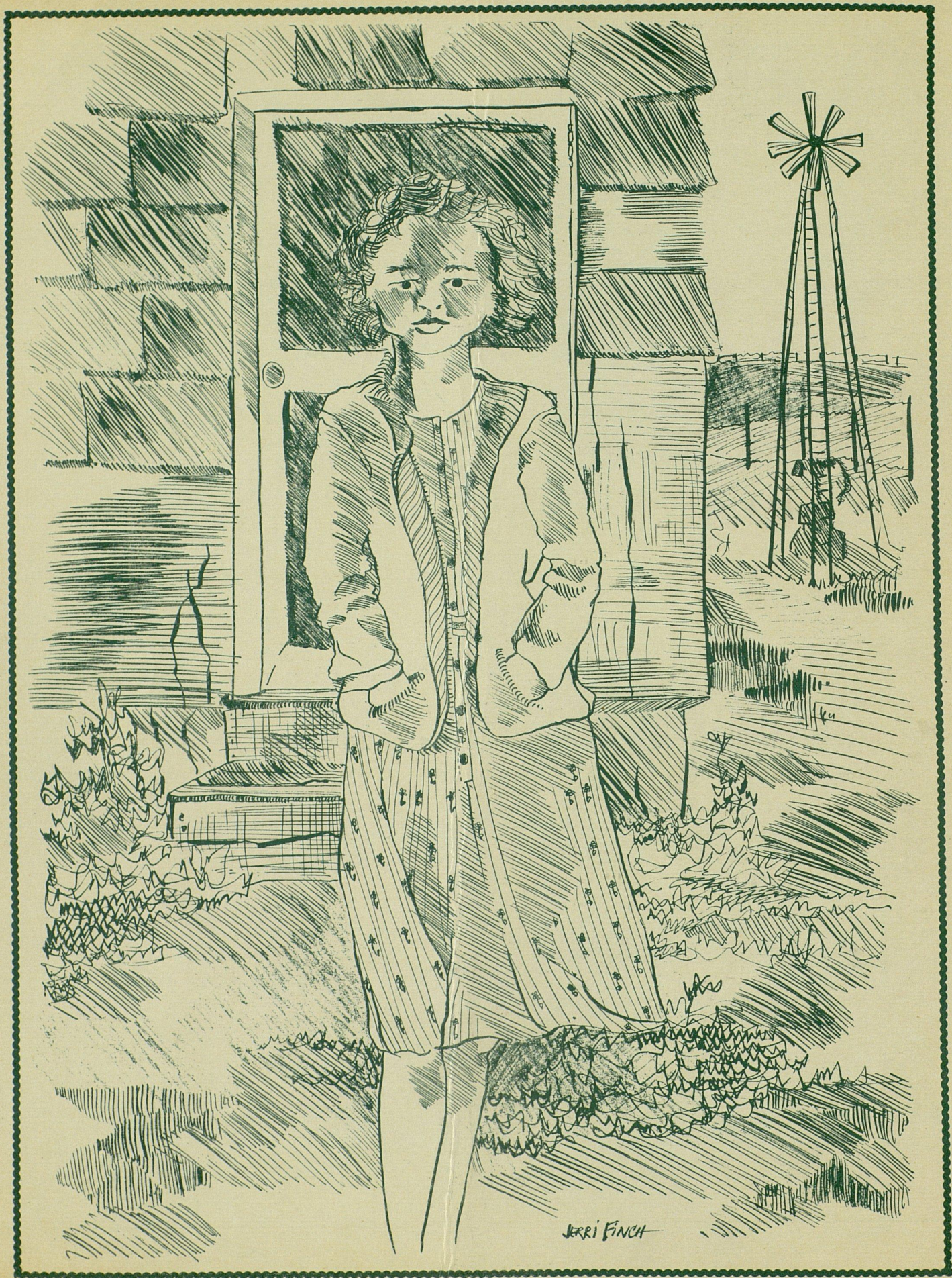
PRACTICAL:  
First Aid: Sparkplugs  
Breeding Your Goat  
Beekeeping



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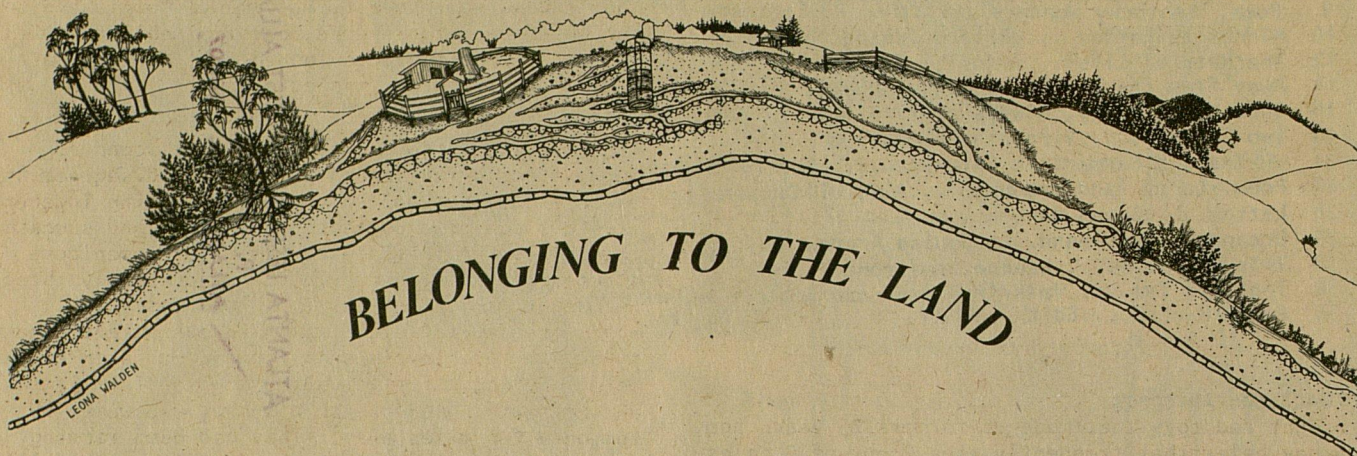
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Three years ago I faced the question of whether a higher standard of living, in material terms, was worth the cost. Deciding it was not, I chose to abandon the security of a regular income, along with the drudgery of schedules and committee meetings, and came to grips with what it was that I really wanted in life. After eliminating the peripheral answers, the basic needs boiled down to independence, visible accomplishment, an opportunity to work with capable women and a life close to the land.

The decision to try to fulfill these needs brought me to the place I spent my early childhood, a dilapidated sand farm in the hills of northeast Iowa. Thousand Pines, named in a moment of optimistic expectation, lies on the southern edge of this driftless area. Although it is within sight of the flat, fertile fields to the south, its few relatively level fields remain miles from the economic productivity of its neighbors. Its tillable soil has too long been in the hands of subsistence farmers trying to eke out a living. Fields have been plowed to within inches of the fence rows to produce a few more bushels of corn, and waterways, developed to hold the delicate soil against spring rains, turned under for the same shortsighted purpose. Pesticides have robbed the soil of not only its corn borers but also its earthworms. Fall plowing has allowed topsoil to be transported on winter winds into nearby ditches or onto far-away farms. It has become a classic example of forcible rape of the land by little men with big machines. These abused "cash crop" acres make up about one-fifth of the farm and must struggle to support the farm and farmers.

The remainder of the farm, looking much as it looked a hundred years ago, lies in and around the limestone bluffs and finger-like ravines that border the Mauoketa River. This area has vast stands

of oak, hackberry and hickory. It is a haven for wild plant and animal life, disturbed only occasionally by hunters who refuse to acknowledge postings or by an intrepid fisherman or mushroom hunter. Almost any summer day the river valley will reward a quiet visitor with the sight of a sleepy-eyed great horned owl, a pair of magnificent red-tailed hawks, or a family of deer browsing knee-deep in wild flowers. This special part of the farm pays its way by enriching life in a manner that has become not only physically inaccessible but also beyond the desire of most convenience-oriented urban dwellers. It was here I came to fulfill those needs in my life and it was here I learned to belong to the land.

Probably any run-down farm would have allowed ample opportunity for visible accomplishment. This one had its own special challenges: a chicken house roof to replace, a barn to convert from a dairy to a hay barn, and several miles of fences to rebuild. Upon arrival the most immediate problem was pasture for ten Hereford heifers and seven horses. The initial fence building, which occupied most of the first two summers, has been completed and the farm now boasts three separate pastures totalling about 60 acres and four large barn lots that simplify the cattle-shuffling necessary when you raise calves. Although when one raises cattle it seems that fence building, checking, and repairing are daily facts of life, there is now more and more time available for other tasks like building feed bunks, making cattle oilers, and insulating water tanks for winter. Last fall even allowed us time to build a garage, which also doubles as a machinery repair shop and overflow hay storage. Whenever you replace a roof, paint a building, restore a fence, or harvest a crop, you immediately know the measure of your success. Satisfaction with your work doesn't depend on someone else's approval or interpretation. It stands as its own visible and unquestionable proof of achievement.



Independence has been a bit more elusive. Although each year the farm provides an increasing measure of self-sufficiency, its economic viability still hangs in the balance. Though a cow-calf operation does not quickly yield monetary returns, we chose this type of farming because it best suited the farm and the limited farming experience we had. Our only source of income for the first two years was from land rented to a neighboring farmer, so not surprisingly, the operation has managed to consume all our savings and has sent us recently off the farm to pick up some quick cash to meet the ever-present bills. This fall our herd has reached 40 head and with our first yearlings ready for market, we anticipate better economic days ahead. Realistically we acknowledge that this will never be a rich life in a financial sense, but our goal is emotional wealth, not a fleet of \$20,000 tractors.

Two used tractors, life-sized versions of those bright red toys that made us farmers 25 years ago, a hay baler that frequently ties 2 out of 3 bales, a hay mower, and rake, make up the nucleus of our agricultural equipment. Purchase of these ate up about one-fourth of our original capital investment. They serve our needs most of the time and the rest of the time provide a fertile field for learning the basics of tractor and machinery repair. Although we are learning, occasionally something major happens that's beyond the scope of our experience or repair equipment. Then we realize again that even a simple life isn't so simple, as a huge semi-truck roars in to sweep away our 50's vintage tractor and returns with a 70's version bill. It becomes clearer and clearer how difficult true independence is to achieve in this society. It seems all that can be hoped for is a more or less satisfactory degree of self-sufficiency, so we continue to strive in that direction.

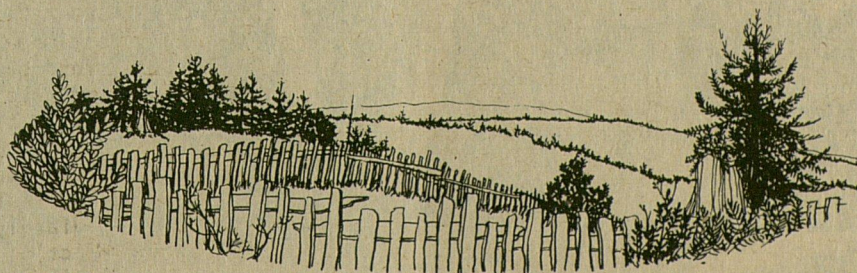
Betty Vandersmitsen once commented that before you choose a life companion you should take that person camping, because so much of a person's true character emerges under stressful conditions like cold and wet, insects and charcoaled eggs. The farming experience likewise brings out the best and the worst in people. The farm, in theory,

appeals to many. It magnetically attracts visitors, women who think they would find their true niche in farming. Very quickly the willing and capable emerge, and remain. Those with momentary infatuation move on, because the life demands more than a passing interest, it demands initiative to see what needs to be done, physical ability to do it, and a commitment to see through routine, as well as challenging, projects.

It's marvellous to see truly capable women at work, functioning together, often in disagreement as to method but united in purpose, using ingenuity in place of experience and brawn, and succeeding. This farm has seen a number of women come and go in three years. There are presently three permanent members of our immediate community. There are several other women in our extended community who are involved in farming or farm-related work. During our first summer on the farm it was an unexpected pleasure to discover two women farming only ten miles away. They had been farming for three years and although struggling, were living proof that it could be done. We've not only been able to exchange machinery and labor but also the kind of moral support that only comes from people facing the same sort of adversities.

Contrary to what the *Farm Journal* and *Hoardest Dairyman* might lead one to believe, the women on farms in this country are doing a good deal more than baking cherry pies and tending the chickens. Most farm wives as well as independent farming women are proving themselves to be capable farmers. They are running big equipment, pulling calves and cleaning barns, in addition to keeping books, gardening and canning. Having recently left a profession dominated by male authority figures, working solely with women has been a relief, an anticipated one. Admittedly, there are women who are difficult to work with, those who are not capable or worse, those not really interested in learning. But for me working with and for other women has proven to be primarily a rewarding and positive experience.

Likewise, my fourth desire, to live close to the land, has more than been fulfilled. I think the memories of childhood and the basic alluring na-





PENFIELD CHESTER





ture of this particular farm had much to do with the unique emotional involvement I experienced on my return to the soil. I had anticipated the standard joys and hardships of farming: the hard physical labor of building fence and making hay; the emotional trauma of dealing with pests, accidents and disease; the delight of producing and eating wholesome food, breathing magnificently clean air, and drinking sweet, pure spring water; being sunburned, hay-scratched, and mosquito-bitten; working fourteen-hour days and sleeping deep, uninterrupted sleep.

I had casually encountered farm life often enough to foresee all of this. What I had not anticipated was that in actuality I was about to have an intimate affair with this land. It subtly crept up on me. The first realization of what was happening came with the building of a much-needed fence through an area that could have compared favorably with any infamous jungle. It was hot, the work was hard and frequently frustrating, but in spite of the uncomfortable circumstances I gradually became aware of a very pleasant feeling of kinship with that piece of ground. I crossed it innumerable times carrying posts and wire, stumbling each time over the same stubble. Delving beneath its skin with a spade and posthole digger, I came to know where the rocks were thickest and where delicate June grass thinly camouflaged hardpan clay. It yielded, but so did I. We compromised on where the fence would stand.

In the process I came to understand the land and belong to it, more than it would ever belong to me. An involvement with the land becomes much more than knowledge of the soil, it rapidly expands to include the total environment. Belonging to it includes the discovery that the sun is more important than the clock and that the forest provides a far more meaningful calendar than the First National Bank. The summer calendar begins with the early wild flowers and May morels, continues with a dependable regularity through June raspberries, July gooseberries and plums, September grapes, and culminates with autumn apples and nuts.

While the summer calendar centers around culinary delights and harvest times, the winter one is punctuated by maddeningly unpredictable potential catastrophes. Generally speaking, the first snow arrives with the Thanksgiving turkey, Christmas is white, January is bitterly cold except for the thaw, and mid-March drops the last big snow-storm on the Girls' State Basketball Tournament.

So much of the process of belonging involves learning to live with that vulnerability as it relates to the weather. It seems we are constantly under the influence of those fickle highs and lows and stationary fronts that elude prediction and consequently frustrate farmers. But when you step outside on that February morning with the air absolutely still in the pink-purple light of dawn and it automatically registers as a nice day, you know you have learned to respond to your environment, not in terms of absolute extremes but by subtle comparisons, and at that point you know you are ready to begin to live *with* the land.

Farm life, too, could easily become a drudgery. The repetitious, unimaginative tasks are endless, but the farm possesses a wealth of natural stimuli and the potential for touching life is great. Yet one is not automatically granted emotional awareness along with farm ownership. It grows out of a conscious desire for involvement on a sensuous level, and although it is self-perpetuating, it occasionally needs to be revitalized or it can be lost in the frenzy of demanding work.

The appeal of this life, this life with the land, is in being daily obligated to deal with it, to know it, to be a part of it, to love it for what it gives and for what it withholds. It offers a certain degree of independence, and continual observable achievement, but mostly it demands that you not simply live close to the land but that you understand and participate, that you belong to the land. ♀





# making do

KATHERINE C. GEORGE

One day late in the summer my family was busy making hay. Big black clouds boiled up over the mountains. While the boys were pitching hay onto the big truck, the girl was riding the hay rake, I was driving the truck between the ricks of hay. We took the last load up to the barn; the hay was quickly lifted up by the Johnson fork while the boys were stamping it down as they pitched it around evenly. When the last bit was safely in, and the horses unhitched from the rake, the children dashed to the house to make a fire to heat up the beans. Pop and I lay back in the hay, side by side, holding hands. As the first pitter patter hit the shake roof, I thought, "I am completely happy, contented. I am so lucky. I will remember this day always."

In 1932 I ran away from home at the age of 22, leaving a MidVictorian father and a repressive job in New York City. I landed in an isolated mountain village in Northern California where farming was a necessity for survival. Shortly thereafter I married a woodsman and raised five boys and a girl. If I had my life to live over again, I would like it to be just as it was. Happiness, contentment, peace and fulfillment describe my life here.

Having little knowledge of farming, and very little money, we learned how to live a very primitive existence with as much comfort as possible. We were very nearly self-sufficient. We had plenty of food, good shelter, and lots of love. When winter came in November, when the cellar was full of food, the woodshed full of wood, the one road over a 6,000 foot pass to the "Outside" closed by 30 feet of snow until June, there was a great feeling of security. We had music, books and a few neighbors for entertainment. Let her snow.

"Making Do" was one of the lessons learned. We couldn't go to a store and buy things (no store) so we invented constantly. The great inventions were created by lazy people. How to do things easier with what was at hand: a forest full of wood, a pile of junk iron collected through the years; a forge and a clever blacksmith kept our imaginations busy and supplied most any need.

Learning how to use tools, to make tools, how to build a barn, a house, furniture, how to milk cows and goats, to raise chickens, how to share the other end of a misery whip (cross cut saw) without bearing down and making life a misery for the other partner, eventually gave me the feeling that if a man could do it, so could I, which came in very handy when my husband died 26 years later.

One of the delightful lessons learned at first was irrigating fields and garden by pouring water in

small ditches out of a very big ditch which came from a river. The Indians used to say white man was a very clever person. He could make water run uphill. From walking on cement for so many years in New York I had all sorts of foot problems. I took off my shoes when irrigating and the fun of squishing mud through my toes has never left me. Every spring off came the shoes and stayed off until fall. No more foot problems. The soles of my feet got so callused that I could scratch a match on them.

That kind of life was wonderful for the children. They grew up knowing what responsibility was, they had initiative, were dependable. They created their own toys, learned the ways of the woods. They could have survived without us at an early age.

However there were many ups and downs as we learned the hard way. When I arrived at this village, the women wore long dresses to the ground, buttoned at the neck, long sleeves. Each woman had two aprons. The dirty one she wore constantly and a clean one hung by the front door. When someone knocked at the door she tied the clean one on over the dirty one, taking it off again as soon as they left. I wore pants in winter and shorts and halter in summer.

Thus I was classed as a wicked woman, especially so, after my lesson on ploughing the garden with two big Percheron horses. It was a hot and dusty day in April. We were the last ranch on a tiny dirt road (my mother-in-law called it a squirrel trail) with a Forest Service campground a mile beyond at the end. It was so hot, I took off all my clothes except a pair of pink panties. Walking up and down, holding the plough handles with both hands, the reins over my shoulder, I heard a car. The ditch went around the ranch which lay in a long wide gulch, alders were thick along the banks. I thought no one could see me anyhow. The Forest Service men, having checked on their campground proceeded to hurry to the village seven miles down river, arriving at about the same time the pack train came in with the mail, and said to the small crowd of people sitting around waiting for their mail, "You oughter get up the river. There's a Garden of Eden up at George's, and Eve is ploughing the garden stark 'necked'." This past year someone asked me if it were true - I will never live that one down.

During the '30's there were many unemployed families drifting in, having heard of the gold to be found. They didn't know how to handle a shovel, an ax, were helpless and hopeless. Often we gave them gas money to get out of the mountains. We had a rather huge garden spot. We decided to have a community garden to help a few families that lived two miles down the road beside the river, with no garden spot. There were very few level places with water, in these mountains, fit for a garden, fewer ranches.





So we bought the seed, much more than we needed, showed them how to plant, weed and irrigate. At first they were all eager and helpful. But as time went on, more and more we did the weeding, the irrigating, the transplanting. They would come occasionally with excuses. Then the crops were ready to harvest. They were right there, Johnny-on-the-spot. One family would get there at 7 A.M. to pick beans or cucumbers. Then at 5 A.M. another family would creep up the road, trying to beat the others getting the best of the crop. They didn't know how to can, wasting much. I remember one morning the dogs woke us at 4 A.M., still dark, and two people were dragging gunnysacks up the rows, lighting their way with bugs (a candle in a Prince Albert can) picking the half ripe tomatoes. I have never had another community garden.

People seldom just visited because of the price of gasoline and the scarcity of cash. They went when they needed to borrow, or to return something, or to plan exchange of work. So when a car came, maybe two or three a week, one wondered what they wanted as they drove through the gate.

The men would sit on their haunches by the corral, their hats over their eyes, chewing tobacco and spitting, talking about their cows, their gold mines, the Foreign Service. The women would get lunch and swap recipes. The children ran off to the tree house or to the river.

One of the good things about living in the woods was the interdependence of the families. Families helped each other raise a barn, build a house, cut wood, dig a ditch. Work was not worth anything. It was exchanged to produce what you needed.

Gardening was a great challenge. I learned to grow celery, which no one else could do successfully around here, even when I told them what I did. My own invention was to plant it six inches apart (little plants from the greenhouse) in a heavily manured bed, 8x10. They grew so close together they blanched each other, grew tall and thick and didn't have to be hilled up. In a small bed they could be covered with a tarp for the winter.

No electricity has ever been piped into this huge area, but a greenhouse worked great for spring seedlings, using two kerosene lanterns on very cold nights. We grew plants for early use in the garden and shared seedlings with others. In summer, if shut up tight, the greenhouse was a great place to dry apples and pears, peppers and figs.

Our meat came from the woods; cattle was a cash crop. We sold butchered beef to a large gold mine for 12½ cents a pound. We could keep the heart, liver and kidneys, and brains if I would saw the head open. All the "guts" as we called them. We even cooked the feet for the neat's foot oil for our shoes, saddles and harnesses.

We had venison, quail, bear, racoons and lots of fish. I loved the deer that came into our orchard and to the salt block. They had such lovely brown eyes. One winter when my husband was gone, working in a hardrock gold mine, we ran out of meat. A heavy snow had fallen during the night so that the willow tree beside the brook was mashed down. I heard the dogs barking above the ditch and saw a deer dash down the fields and into that willow bush. I grabbed the .30-.30 thinking "steaks, stew!" I crept close to the beaten down brush and peeked in a small hole in the snow. There was the deer looking out at me. I never thought about those beautiful eyes at all as I pulled the trigger. Down it went, the dogs clammering and rushing to grab it. I yelled for the kids. We dragged it up to the woodshed and took care of the skinning and butchering. And we had liver for supper that night!

All the ranches had lots of water in ditches. The men had miles of mining pipe to mine gold. But not one house had indoor running water. We put a wash tub near the house, a trough brought the water from the ditch. We dipped buckets and packed it into the house. I became upset about this after having two kids in diapers at the same time and raised eight dollars selling eggs to tourists at the campground. On our next annual trip outside to the county seat for winter grub, I bought three lengths of pipe, some fittings and a faucet. And lo! Running water in the house. The ditch was only 20 feet away and 20 feet higher than the house. Much later after 18 years of marriage and six kids worth of diapers, we installed hot running water heated by the wood stove with a real bathtub and an inside toilet.

Some of the happy times I remember were: apple picking time in October, up the ladders in the tall old trees, the sky so very blue, eating apples until you wished for bread to sop up all the juice; getting wood in the fall, up on a mountain, sawing and splitting, throwing and stacking, all eight of us watching the pile grow bigger and bigger, knowing the house would be so warm when the outdoor temperature dropped to zero; going fishing up the river, packing a small baby in a sling, swimming in the pools after they'd been fished, building a fire, eating fresh trout, napping in the shade of a swamp maple, the children splashing and hunting pretty rocks, and home in time to milk the cows; camping up in the high country by a lake 7,000 feet above sealevel, tethering the horses in a meadow, seeking all the rare alpine flowers, climbing the mountain peak above the purple blue tarn at its foot, looking out over all the world, sitting quietly, one bird chirping, the wind sighing through the twisted pines.

In the late '60's many young people escaped from the city and came here just as ignorant as I had been. It has been fun teaching them all the ways of the woods that I learned from the old timers. I hope their farming and living in the woods makes them as happy and as contented as I have been. ♀





# BREACHING THE BARRIER

JAN SCHUTZMAN

The clothes were right--worn boots, dusty jeans, blue cotton shirt, denim jacket; but the person was all wrong--small boned, slender, light musculature, and definitely female. The stocky, brawny, overall-clad employees of the agricultural co-op paused in their work to stare just long enough with carefully hidden hostility as I stood on the ground at the loading dock, waiting for one of them to fill my order for simazine, a pre-emergent herbicide we planned to use on our tree plantation that day. I hid my uneasiness behind a dour expression and a brusque thanks as I received the bags of powdered chemical.

The experience of feeling out of place recurs frequently as I deal in the world of agriculture. I shrug it off with difficulty, find it far harder to cope with than with the heavy physical work of country life. The agricultural industry is as male centered as any there is, and because much of the work is heavy and hard, derision is a major element in the various uncomplimentary looks most agricultural workers aim at a woman who is trespassing into their domain.

I'm fully accepted in an agricultural co-op if dressed in street clothes and impractical footwear, and am purchasing pet food or even a bag or two of fertilizer. Then I'm just a woman doing my woman's chores--tending the pets, even the rabbits, and working in the garden. But when the clothes change to practical ones designed for hard work, and the purchases to a large amount of an agricultural chemical, the looks sharpen, and my unease builds.

One afternoon a USDA conservation expert came around to look over our farm for an appropriate pond site. I happened to come home from work earlier than my husband, and so it fell to me to show him around. After changing out of my good clothes, I set off with him down a steep rugged slope to low wet ground where springs are located. Never once during that walk did his eyes meet mine in an honest, straightforward fashion. Often, and unmistakably, his eyes would move up and down my body as he explained some technical detail of pond construction. I was humiliated and furious and couldn't help but wonder how much of his attention was on the business at hand. To this day, I have no confidence in his recommendations. The next time he came, my husband was home and dealt with him. I didn't ask, but assume his eyes did not look over my husband's large, tough, husky body as he talked.

I realize that as our plantation develops and grows and we begin to see some return for our efforts, my self-confidence will strengthen and not only will my skin thicken to these insulting attitudes, but also, if we attain the success we

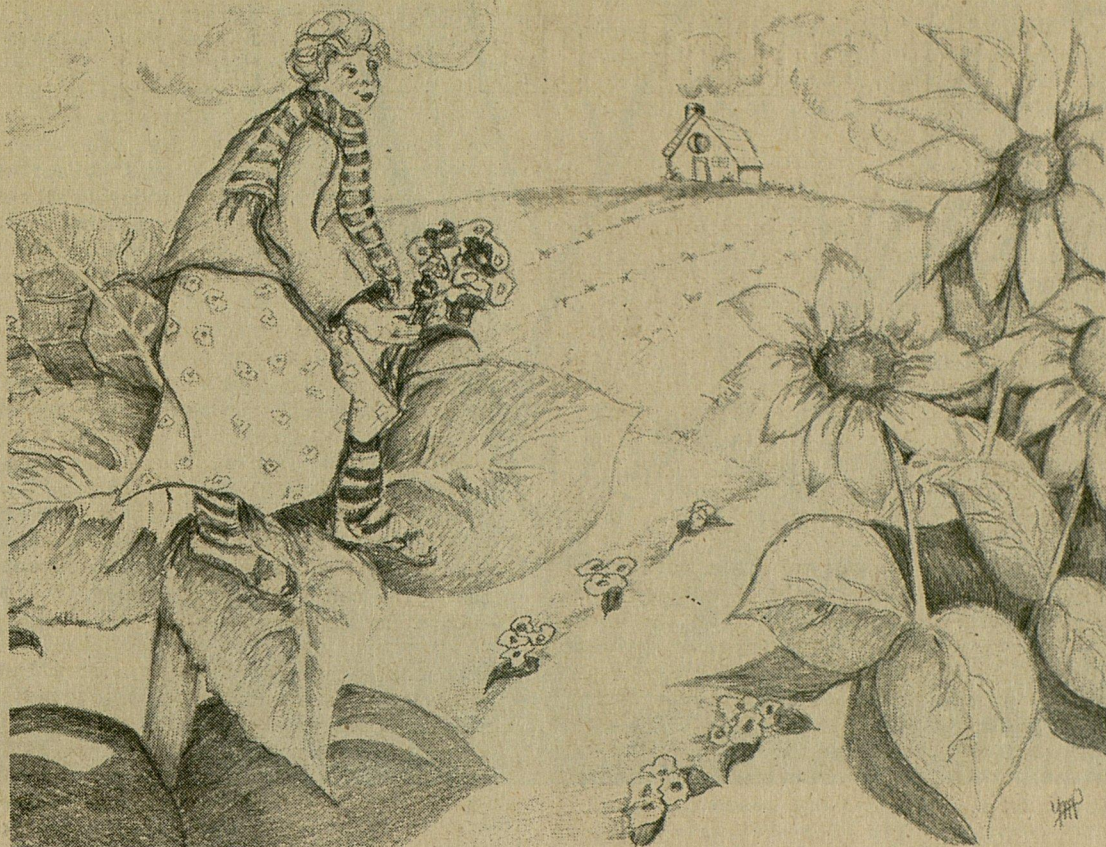
are aiming for, there will be an element of grudging respect to temper the antagonism. Meanwhile, I feign a coolness I do not feel and fight to remain civil under rude and hostile eyes.

As my mind and spirit have to fight these attitudes, so my body too has a struggle at times in areas where it is not at home. We are slowly and painstakingly clearing steep hillsides where ancient pastures have long ago reverted to deep-rooted hardwood trees, enormous impenetrable multiflora rosebushes, and thick wild grapevines. As I swing the heavy mattock against an unyielding wild cherry root and my back and shoulder muscles cry out against the punishment they're taking, I can't help but wonder if I'm asking too much of my woman's body.

In cold weather we heat our home with a wood stove. We have our own wood lot and spend most of our winter weekends cutting and splitting fuel. After my husband fells the trees with his large chain saw and cuts them into lengths our truck can haul out of the woods, I saw the long logs into stove lengths with a lighter electric chain saw and split the rounds when needed. Most of the time I find this work pleasantly strenuous, chuckling again and again at Henry David Thoreau's adage about how cutting one's own fuel is a twice warming operation. Occasionally, though, as I struggle to load the stove with a 35 pound log, or feel the rough contrast of the jagged hardness of split rounds pressing against the softness of my breasts, I am made wryly aware of the vulnerability of a woman's body in the arena of heavy physical work. While it is an undeniably hard life, the traditional role played by farm women in kitchen and nursery, garden and hen house simply does not tax the smaller muscles and lighter frame of the average woman as does the modern country woman's role I and many of my sisters have chosen. But I'm stronger now than I was a year ago--my shoulders and arms are larger with no weight gain; my body is trimmer and my muscles harder. I value my stronger self and while there are tasks I simply cannot do, I never shy away from a job because of physical demand.

Overwhelming all these difficulties, however, are the satisfactions of life on our farm--still, quiet pleasures that go deep into my soul. The quiet of the hills on a windy spring morning, the feathery softness and tender green of new growth on young white pines, the succulent red richness of a ripe tomato eaten still warm from the garden's heat, the grace and peace of a pair of deer browsing on a distant hillside in the darkening light of a summer evening, are only a few of the myriad images of the enduring beauty and simplicity of country life. Each new day these moments arise to balm the many hurts inevitable to life. ♀





## KENTUCKY WONDERS

We dropped bean seed, six to a hill.  
Warm rains later pale sprouts pushed,  
straightened, lifted twin leaves to the sun.

Poles set tentlike cornered a square,  
were leaned to center, tied with twine.

Bean vine tendrils waver, seek firmness.  
A gentle hand eases a lost direction.

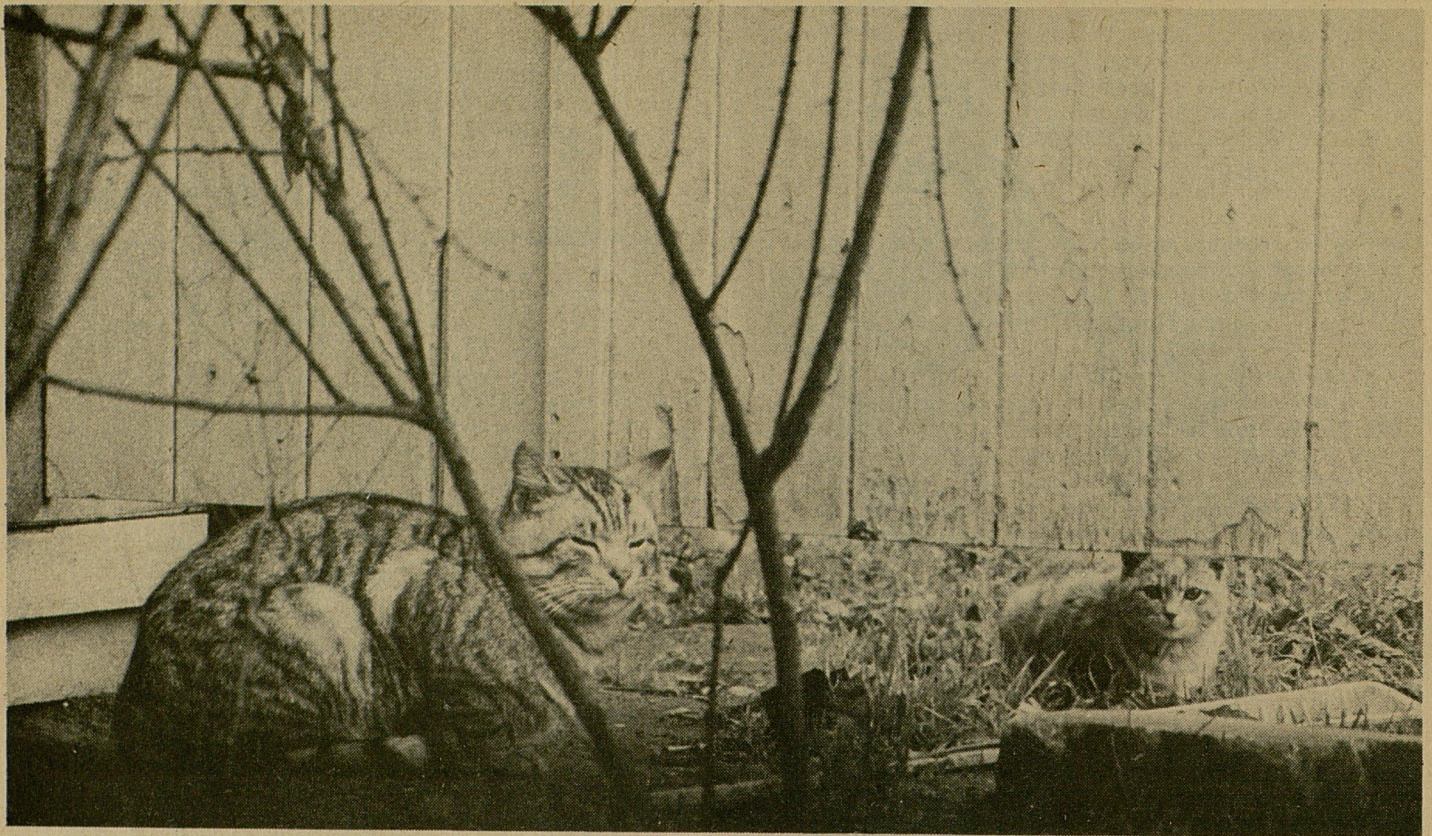
They climb counter clockwise, wind upward,  
reach pole tips, rest and blossom.

I watch this sure and even progress  
bean vines make and wonder why I,  
at angles with myself, am always clockwise.

from *A Sudden Clarity*  
*Olivant '67*

ETHEL N. FORTNER





JOAN WOOD

# MINNESOTA FARMER

## ARLENE ISHAUG DELP

Farming women, you ask, who are we? I guess maybe I qualify; or if I don't, I will within a few months when the Brown Swiss heifers I raised from calves become mothers.

I am forty-one, but feel that I am just beginning to live. After years of exploitation by employers and a marriage that was a complete disaster, my life now, though filled with hard work, contains many satisfactions. My childhood and adolescence were spent on the family farm in Minnesota. The eighty acre farm I now own is very close to the larger farm my father operated when I was growing up. I was fortunate enough to see the old ways of farming before the advent of agribiz. I helped shock grain and drove a team of horses during threshing season while also filling in as part time grain hauler and helping my mother cook mountains of fortifying food for the threshing crew. We raised milking shorthorn cattle and sold cream. My mother and I were the sole custodians of the cattle through the spring, summer and fall. We also cared for the laying hens, little chicks and hogs. A part of the weekly cleaning was washing kerosene lamp chimneys and carrying out the chamber pots in winter.

I loved the land and the animals she supported but

didn't realize how much until I was separated from them. I was married at twenty-one to a man who made my life a nightmare for the next nine years and longer. Indeed, I will always bear the emotional scars. When the marriage finally ended I was a physical and emotional wreck. I had worked as a bank teller for eleven years. I struggled on at the job for one more year with the aid of tranquilizers, sleeping pills and especially alcohol. These had gotten me through the excruciating months at the end of my marriage. But alcohol was no longer the soothing friend it had once been. It became a ravaging enemy and cruel taskmaster.

Despite its torment I made the decision to attempt to satisfy the hunger for knowledge that had always been with me. Books had been true and reliable friends since first grade. Casting myself financially adrift, I left my job of twelve years and enrolled in college. This was the beginning of the beginning. I fought alcohol for two more years while making the dean's list every quarter (I don't know how). Then with the help of some one who has remained my best friend ever since, I managed to conquer it, graduate Magna Cum Laude, receive a graduate assistantship and complete two years in graduate school.



Accomplishing these things gave me a sense of myself that I had never had before. I had grown up feeling inferior because I was female. This is often given to us in our mother's milk. Certainly in our father's attitudes; sons were what really mattered. As a wife this feeling was firmly entrenched daily and fortified by an employer who said women couldn't possibly be paid the same as men. After grad school I wasted precious time at low paying "female type" jobs, the only thing I could find. Education had made no difference to the employers but it had to me. I knew I was not the silly incompetent the social conspiracy had tried to convince me of being. Also I still had the farm. I had managed to hang on to it through my ex-husband's mismanagement, drinking and spending sprees and my college years' expenses.

I went back, home to the farm. And home it surely was. I finished up at grad school while trying to get my bearings on the land. I had the farm rented out for cash. This was not good for several reasons, among them being the fact that I had no control. I switched to a one third share arrangement the year the grain prices dropped to an almost unprecedented low. Despite these setbacks I knew I had to hang in there. I had come home. I could feel it inside where something very basic lived. I became increasingly frustrated by not having the equipment or knowing how to farm the land myself. I was still not very much in control. Then the memory of my childhood summers crept into my mind; walking to get the milk cows as the sun came over the fence lined hill; whistling softly to the old shepherd dog I grew up with; the gentle soft eyed cows coming to meet me in the pasture lane, the clean earthy smell of the barn as I put my kerchiefed head against the warm red flank.

I began two years ago by buying a Holstein-Brown Swiss heifer and a Swiss bull calf thinking to have a milk cow for my own milk and beef to sell. But the idea grew. If I pastured cattle and raised more good quality alfalfa hay on my land, I and the land would derive more benefit; while grain farming had been more profitable to the man who had the equipment and the two-third share. I saved up enough to build a small barn. I bought seven more beautiful doe eyed Brown Swiss heifers from a dairyman who has become a valued friend, helper and advisor. He helped me build a strong, durable, electrified barb wire fence, located and helped install a used barn cleaner to replace my fork and wheel barrow, and in general has been a teacher of skills and dispenser of knowledge.

This summer I built a hay shed on to the barn with money saved up from yet another job which I endured while caring for my young stock and calves last year. It is now crammed full of hay; most of it from my own alfalfa field.

The end or perhaps rather the beginning is in sight. Seven of my nine Swiss heifers are large and old enough to be bred. I have engaged a car-

penter to build an immaculate, starched white milk house or dairy onto the barn, have contracted for used dairy equipment to be installed and then... next spring and summer my head will again be placed against a warm flank, at least for as long as it takes to put the milker on.

Agribiz has chuckled, even laughed out loud at such simple doings as eight or nine cows. Well what can you expect, she is a woman, you know. But the important thing is that I am slowly gaining control...of my land and my future. The cattle are mine and the products, milk and beef, that they produce I don't have to share with my renter, the man with the equipment and knowledge of grain farming. They will provide me with a modest living. In time it is my goal to buy some haying equipment so that all of the hay rather than only a small part will be available for my little herd. Grain acreage has been cut so that only a small amount of oats will be grown for feed and a little wheat to sell in order to buy corn for the cattle.

For me it makes better sense to seed more pasture and hay land even though the soil is rich and well suited to grain farming.

The improvements I have made will necessitate a loan, but not an insurmountable one of the type most people think necessary to get into dairying. Those nine cows will pay for the dairy and the used equipment and provide me with a modest, simple living. That is all I require. You see, the land, the farm does not discriminate. If I can produce good quality clean milk and eggs (I also have about forty laying hens) nobody is going to pay me less for them because I am a woman, as had been my experience all through my working life. It is slowly improving out there in employment land but the struggle is still on, the battle far from won.

But that's only the dollars and cents. There are other things. Living on your own land, producing your own food, tending your own animals, gazing across your own fields at sunset, planting trees, vegetables, berries, flowers, building a good straight durable fence, wiping sweat from your eyes to watch a hawk circle in the sky, lying down in the stillness of your bedroom, your arms aching from the weight of the bales you stacked. But the breeze ruffles the curtain, the moon makes soft puddles on the braided rug, the cat yawns purring on the window sill; there is a sleepy chirp on a branch outside; and you are tired, bone tired. But, by God, you got it done. That hay is in the barn, the straw stacked. Next winter when the north wind sends howling swirls of snow through the bare trees you can walk to a nice warm barn, milk the cows, clean up, feed the cattle that nice fragrant nourishing hay, go back to the house, pour another cup of coffee and start writing that article, short story or novel you have been thinking about for months. ♀





# THE NATURAL LIFE?

JUDITH SINCLAIR



Several times a year folks drop by our twelve acre homestead to rap about life in the country; some just beginning to outline their dreams, others in need of some pretty definite how-tos. "If we could just get us an acre or two," they say, "raise a few chickens and a goat, put down a garden. We want to be self-sufficient." I love visiting with these would-be fellow adventurers. My "professor-parent" beams at the chance to play her role, instructing, guiding. But at the same time, a kind of sadness comes over me, for many of these dreams never will bear fruit.

As we walk the land, a slow mist rising out of the fields, chickens cooing contentedly as the first rays of the sun warm their pens, it's easy to see how beguiling these images are to the harried city soul. It's true that these romantic images are part of life on the homestead, but they are a sometime thing, like a nugget nestled among homelier pebbles. They are the sweet desert, not the daily fare, though they are indeed perhaps what makes it all worthwhile.

Our city visitors are inspired by the mystique of the natural. They are determined to turn their backs on the technology of our age, to return to a simpler, more basic life. "No electricity," they vow, "we want to disconnect ourselves from the establishment." But from whom, if not the establishment, will they buy the kerosene to fuel their flickering lanterns, the seed for their garden, the grain for their goat? "Natural" is perhaps the key word, for in this harried age of plastic, it conjures up visions of quietude and wholesomeness, of a life pace wherein people can center themselves on things of lasting value.

But what is "natural", so easy to define in dream, so much more difficult in reality? Richard W. Langer, in his book *Grow It* writes, "In the thirties hens producing fifty to a hundred eggs a year were considered pretty good layers. Today a chicken not laying two hundred fifty to two hundred seventy-five eggs a year is laughed right out of the hen house and into the stew pot."

A very astute reader might dig out the crucial message that lies between those prosaic lines. But, if she is anything like we were, sad experience will be her teacher. We too had our visions of the natural: what could be more lovely than plump red birds and sleek white ones dotting the green pasture, scratching happily for morsels to



supplement their commercially prepared rations? The greens would make their yolks a deep orange and also would help to cut feed costs.

Come winter and the rains, the picture changed. Our once shiny birds were standing hock deep in a slimy mixture of mud and manure, unable to scratch for their grain as it sank into the mire. They hated the wet and huddled unproductively in their tiny houses to avoid it. The zany Polishes, which we had bought because their fluffy top-knots looked like lavish headdresses, now resembled prom queens caught in a sudden downpour.

After what seemed eons, spring dawned, and with it the ever-greening hopes of a new beginning. The day-old chicks were ordered and, upon arrival, were popped into the brooder, where carefully controlled temperatures would insure their survival. All was going beautifully. Then came the time to put the fledglings out. Because the space we could devote to chickens was limited, we were forced to try to somehow get around the oft-read exhortation: "don't put young stock on ground recently inhabited by old birds."

We cleaned, disinfected, and generally kidded ourselves that everything would be okay. And so it was for a time. Then came what we now refer to as "the chicken panic." The young birds began to die. It seemed hard to believe, because they were well grown, in good flesh, and long past the age where you might expect to lose chicks in droves. Yet each morning told the same tale. We would go out to find two or three dead, or dying, until we had lost nearly half our new flock.

At this point, we had to quit muddling about and seek professional help. Fortunately for us, a new vet, the first ever in our area who would deal with farm animals, was just setting up practice. He sent us to the state pathology lab, where autopsies were performed, and recommendations made.

Eventually we got everything straightened out, and today our chickens are thriving. But in the process we were forced to take a long look at our preconceived notions of naturalness. These hens were a far cry from that scrappy old girl of the thirties, who foraged for herself and who could only be bothered to lay an egg every third day or so. By comparison, these were hot house flowers, or more aptly, delicately engineered egg machines. As such they required much more complex care than their more hardy, albeit less productive forebearers.

This lesson was brought home to us by yet another sobering experience. After several seasons of bottle-feeding our kid goats, we decided to let their dams nurse them. Pure goat milk, right from the source, would be better for the kids, we reasoned, and certainly would save us time and trouble. We would separate the young goats from their mothers during the night and take the morning milk for ourselves. The kids would nurse during the day, and best of all, we thought,

the added stimulation would increase milk production. A happy solution for all.

However, it did not work out quite that way. About half way through the season our best doe, who had been nursing twins and pouring almost a gallon of milk into the pail each morning, began to slump. Rapidly her production dropped by half. At the same time I began to notice a change in her udder. The formerly soft, capacious bag now contained in each of its halves a firm mass about the size of my fist.

Still the doe did not seem ill, nor did she have any of the symptoms of acute mastitis, so for the time being I laid my worries to rest. Still, her production dwindled, and finally I decided to take her to the vet. He examined her carefully and tested her milk.

"This doe," he told us, "no longer has any active infection, but she undoubtedly had a low grade mastitis in the past. Most likely her udder was bruised by her kids as they bumped her to get her to let down her milk. These masses you feel are scar tissue, and since they take up space in the udder that used to be filled with mammary tissue, her productive capacity is permanently impaired."

We were shocked. What could be more natural than a goat nursing her kid? "You must realize," continued the vet, "that a goat in the wild is a far different affair from these highly domesticated animals. Wild goats have small, leathery udders that only let down small amounts of milk on demand. They are built to withstand the abuses of the kids. But these large, fleshy udders cannot stand up to that kind of treatment." Once again the realization was forced on us that humans have intervened in nature's affairs; that what was once natural may no longer be so.

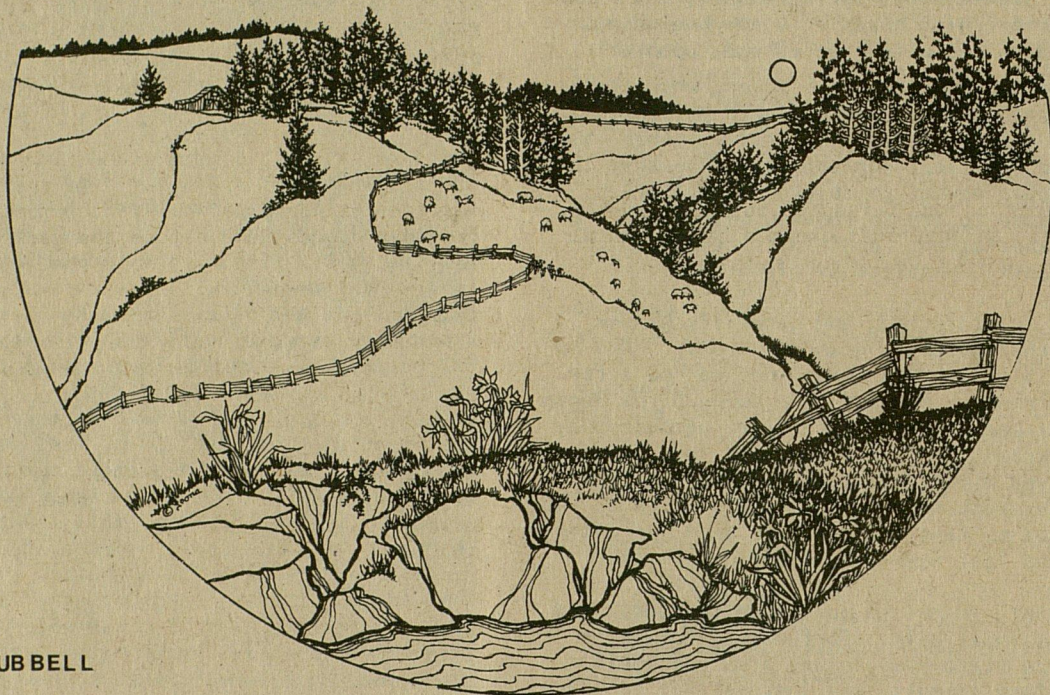
At this point, you're probably thinking that our country life was just one long harvest of sour grapes. Not so. We have begun to learn about that very delicate balance between the natural and the engineered. Human beings have changed the face of nature and in so doing have given themselves a great responsibility. We must nurture our newly engineered animals with care and thoughtfulness. They cannot be left to follow nature's ways and still maintain the standards of health and productiveness we have grown to expect.

By the same token, the animals and the land give back in full measure every bit of care and love that are put into them. What a high to look at a sleek productive animal and to know that by your hand she is so!

It's a new frontier, this country life, where we can reach back for the best of tradition and reach ahead for the best of technique. If we can accept responsibility for the distance people have traveled away from nature, we can bring together the natural and the engineered in a sensitive union, and fill our lives with grace as well as purpose. ♀



# AWAY FROM THE RANCH



LEONA WALDEN

KATHY HUBBELL

The alarm goes off at 7:00. I must have been dreaming about the ranch, because I wake up disoriented, trying to remember where the door is, and why I don't hear the cattle raising their early-morning chorus for hay. My head clears, and I am at home in the city trailer park and it's all right. I get up slowly, and check the weather outside. Overcast, wet and misty again. I hope the sheep aren't picking up any hoofrot in the wet fields. I wonder how many logs Leonard will be able to skid out on a day like this. I'm half glad it's not sunny, that work on the ranch will be limited except for winter building. I know when early summer is here, and I am sitting in my classes at the University, it will be torment not to be helping buck hay. I'll wonder how much better the garden could have been this year. I'll get horrible guilty feelings that John and Diana are in a day-care center or summer school so I can study, while they, too, are wishing they could run down the drive, across the road and the pasture, and jump into the swimming hole for the afternoon. It will take a lot, then, to remind myself why I am here.

When we first came to the ranch, we were a whole family unit, Jack and me and the kids. We shared the land with another family, our best friends.

But the country did what it does best: it held up a reflecting mirror of our own personalities, it demanded an honest assessment from each of us about who we were, what we dreamed, and what we could do. Our friends dreamed money and investment. Jack dreamed the city that we had both started out from. I dreamed the land and the seasons. The animals just seemed to be a luxury adding to the joy of that. Now the structure of our lives has changed; the ranch is mine, and in my absence Leonard watches it for both of us, since for the past year he has leased out the larger part of the acreage for his cattle. He has been a blessing, because he has made it possible for me to keep the land and my sheep, while I go back to school. I go back to become trained in my profession, journalism, so that when I go to work again to support myself, the kids and the land, we will have the cash flow we need. Ranching takes a lot of cash flow. Self-sufficiency on the land doesn't take as much, but it does take time - I would like a middle road between living from scratch and hustling for the dollar all day. I would like the sheep to pay off, really pay off.

Breakfast time. John and Diana are goofing off, teasing; you'd never know the huge adjustments



they've been making along with me this year. Thank God they are still so young - John is 4 and Diana is 8. They like their schools, but they miss Rascal, our dog. We couldn't bring any animals here. We parceled out Rascal, the rabbits, and of course butchered Anna, the pig. I wonder how kids learn responsibility in the city and suburbs. I never did figure that out, even when we lived there. There is something different and intensely real and logical about sending them down to the barn to feed animals, to check for new lambs, to help nail shakes on the roof, to turn bales in the field as they are drying. None of them learn any sexist roles. They just learn the feel of good, hard work. They learn how good it feels to use their muscles, to feel the snow and later to feel the hot sun. Just as I learned. And most importantly, they learn not to be buffaloed by it.

It seems a hundred years ago that I was totally buffaloed by the tractor. Or by using a splitting maul. I remember how I laughed out loud when I realized what an enormous joke men have perpetuated - that it takes a MAN to do that work. Men were clever - they invented a million mechanical and electrical devices to take the manual out of manual labor. Those devices anyone can operate. How delightful to discover that feeling of power, that it doesn't take pure brawn, just the right attitude and a little common sense. How good and real to feel my own muscles work. And every so often, how grateful I am for the help when I *do* need the extra muscles. When Leonard is there, or Doug, I don't feel threatened anymore. I know now that I can do a lot, but no one can do everything. I don't have to go it alone. That's exactly why I think I can ranch full-scale in the long run. That's where I'm going.

Diana goes out the door to school. I drop John at his pre-school, and drive to the University. I take my bicycle off the back of the car and head for my first class.

Lunchtime. The cafeteria is noisy, busy, alive. Rock music in the background. A good place to eat and study, or just watch people. Enormous human variety. I have to remind myself to get a lot done while my mind is in its University gear. Back home, my thoughts will automatically turn to the ranch. I cannot go out and walk the fields, check my sheep, and plan fence lines. There is only the trailer court, which at least has a green five acres for the children. But I can work out a schedule of sheep vaccinations, estimate the cost of the new fence, reply to the letter from the ASCS office on cost-sharing for seed and fertilizer. And that still feels good. There is still a sense of control, of choosing my own directions, of making my own choices.

I look up and wonder how many of the girls and young women I see here are aware of their choices. I ache for those who, unknowing, go on to fulfill their designated roles. It takes so long to realize that we can have the same concepts of tools and their use that men do. For instance,

the university is a tool for me now. I am using it as a road back to the land on my own, as a statement of my own potential, as a moratorium after my divorce. It feels good in my mind, the same way my crescent wrench feels good in my hand. I can use the world around me to achieve my goals, and that is power. Infinitely better than feeling absorbed by the "system".

The kids and I arrive home, and I automatically wish I could go out to the barn and milk Taffy, or work on the water line. For two years, I came home from work, which seemed a necessary evil, to my real work, which was not work at all. What a break it always was to come back to real, solid, earth things. Now I come home and read and have tea, then with my usual resignation start in on the textbooks. Sometimes I do extra washing or housework just to have something physical to do.

Darkness falls, the wind picks up, and the rain comes again. Two years out from the ranch seems forever. Leonard calls. We're expecting a lamb from our biggest ewe before the week is out, he says. Oh, beautiful! I hope she waits till I get there Saturday. I hope it's twins, I hope they are healthy, I want to hold one right now. I remember New Year's Day this year, when the first lambs came, a buck and a ewe, perfect little things and strong. We took it to be a good omen for the new year.

And maybe, just maybe, two years will pass quickly and I'll have learned so much more that I need to know to develop my own ranch, and then I'll be back. And the kids will run free again. ♀



SUE ROETHELE



# ONCE A HILLBILLY, ALWAYS A HILLBILLY

KEIRA DUVORNOY

Kate is a woman deeply rooted in the earth, the Appalachian hills, and will always be a hillbilly farmer whether she is on a farm or not. In the hill tradition, she is gifted with the ability to pass on stories, knowledge and love. For me she is a great source of inspiration.

Being an Appalachian woman distinguishes her in many ways. It means that she has lived in lumber camps for much of her life, that she married a miner and nursed him for fifteen years while he died of black lung, that she dealt with her mountains being stripped and leveled and has been a farmer in a terrain where farming never makes much of a living for anyone. She has grown into as strong a woman as lives. Like most country women, she spends her life dealing with survival and transforms it into a craft. She has been through three husbands and is done with men. In her own words, "There ain't no use ta bein' a slave ta someone. I like bein my own boss." When my woman friend and I went up the hollow to build our house she was supporting us all the way. Before we knew it she was digging up stories from the past of her grandmother building her own log cabin. Here is her story in her own words.

"West Virginia, it's just home. I don't like no place where there's no hills. Best farmin' I ever done in my life was up on that farm on Elison. I often lay at night an' wish I was up there. That earth was so black, didn't have to plow the ground was so loose. I've been makin' a garden ever since I got married, when I was sixteen years old. I married to git away from home. We lived in a loggin' camp, Wining Gull, West Virginia. We'd git up in the woods an' clean up a garden space an' I jus' learned myself ta garden, ya know? I did the farmin', he'd build up big hills so the water'd run off, so I did it. Lord I can't stay outa a garden.

"I like ta raise okra, such a pretty yellow bloom. I like ta have my garden by myself. He didn't care a thing 'bout that garden. Every mornin' I'd go out there an' it seems like I could tell it growed the night before. Now my mother was a farmer. That's where I got it, I guess. The Bashams were good farmers, they wouldn't never hoe all the weeds out. Now your plants have ta be on a good start an' ya just take out the small weeds and leave the tall ones. That way the dew just falls off fer the plants. No sir it takes a lot a elbow grease ta raise a garden. Now I look out on

my garden with all that snow on it an' I can jus' see the corn an' taters out there.

"I don't plant nothin' without a almanac. Anything that grows under ground, do it in the dark o' the moon. Cabbage in the head. Don't never plant vines, only when they're in the twins. They'll bloom themselves to death and never produce nothin'. Beans in the light o' the moon. Kill a hog in the dark o' the moon - won't leave no grease in meat or no lard much. Got to do it in light o' moon. Dark o' moon meat ya have ta fry. Your kraut is made good in the head. Used ta pound kraut til it made its own water, we never put water in it.

"One time I made pickle beans an' I never thought much about signs then. Mama lived up the road then. She said she smelt those beans when I put them up an' we looked it up an' it was in the privates sure 'nough. I just poured 'em out they stunk so. Best time ta fish is from knees ta feet, they bite best then, an' in the head too.

"Up on the mountain, that's the time we planted clear around the hillside. You couldn't see the far end, it went plum around the corner. I hoed that whole field once, three or four days a' hard hoeing. By the time I finished it growed up at the other end. There's when I quit raisin' field corn. I didn't get any help. He'd go take somebody to town an' he'd stay all day ta keep from hoein'. Now a garden I like ta get out an' pick in, but field corn, that's too much.

"Now there's somethin' you're sorry you get used to; a hay rake. I'd sit up in that tractor an' trip the rake. Before the hay rake we done it with pitch forks. Four or five big stacks a day. They'd be higher than this ole house. After we'd get it stacked as high as we could, I'd wrap an' wrap around that pole. We'd put an' old tire on top. After I's done, he'd throw the old horse reins up ta me an' I'd have ta slide down. There's an old lady that taught me how. One year when I was sick we had some boys do it, an' ya know, we had ta burn ever bit o' that hay. It leaked through an' rotted.

"Don't reckon I'd have it any other way than ta be a farmer. Wished I'd had sense enough ta stay on that farm. Even on alone, once a hillbilly always a hillbilly, I guess. ♀





Pam Spaulding



# Sisters of the Turn of the Century

VIRGINIA McLOUGHLIN

On the playground, "The farmer takes a wife," and what little girl doesn't want to be chosen. But later on in life it is often a different matter, as the following two letters from farmers' wives will attest.

These turn-of-the-century letters between the Everett sisters, one in Connecticut and the other in upstate New York, spout out the frustration and loneliness of a country farmer's wife, feelings which later were to be so sensitively portrayed in the poems of Robert Frost.

Lines from his poem "A Servant to Servants" are poignantly reminiscent of these letters.

"It's rest I want -- there, I have said it out --  
From cooking meals for hungry hired men  
And washing dishes after them -- from doing  
Things over and over that just won't stay done.

... and he's got too many men  
Around him to look after that make waste.  
They take advantage of him shamefully,  
And proud, too, of themselves for doing so.  
We have four here to board, great good-for-nothings,  
Sprawling about the kitchen with their talk  
While I fry their bacon. Much they care!  
No more put out in what they do or say  
Than if I wasn't in the room at all.  
Coming and going all the time, they are:  
I don't learn what their names are, let alone  
Their characters, or whether they are safe  
To have inside the house with doors unlocked."

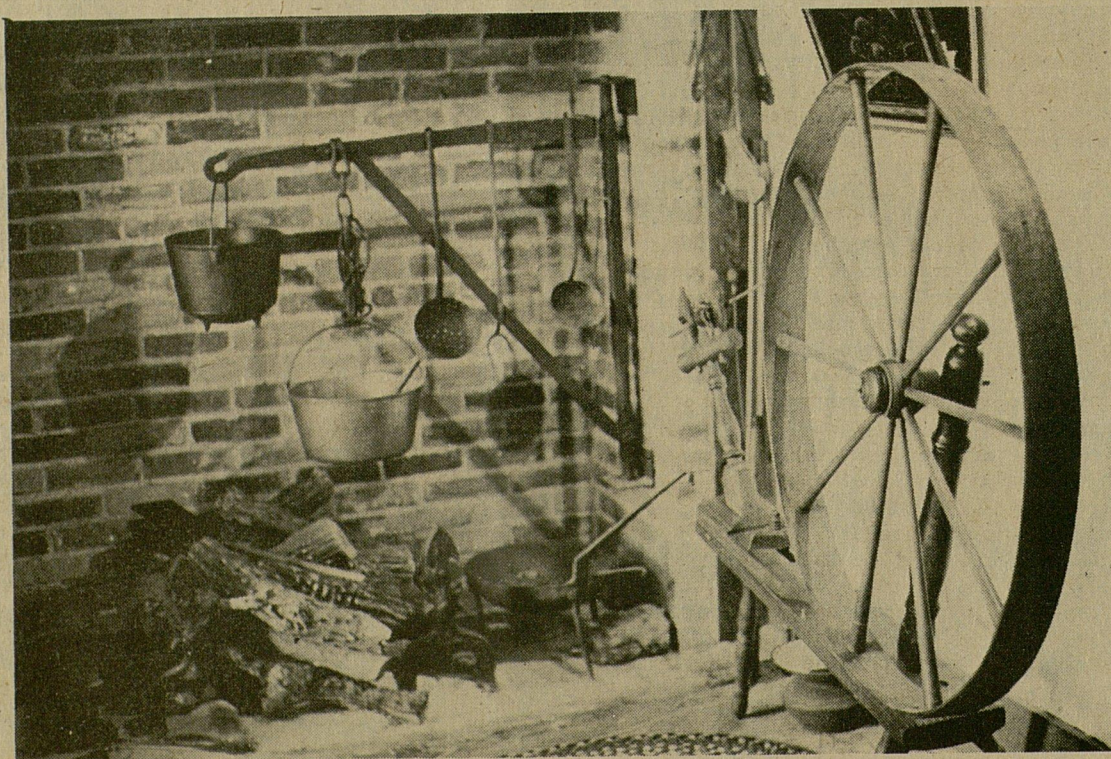
Above all else in their work, the Everett sisters objected to being a servant to servants. They hated and feared the hired men on the farm. They had been brought up in the 1860's and '70's on a northern New York farm where the only "hired men" were their own brothers or neighborhood acquaintances. They were unprepared for the upward mobility of the rural male, and the consequent necessity for farmers to hire complete strangers to the neighborhood and often strangers to the American continent. "For my part I stand in as much fear from the men in the house as from those who might be prowling outside," writes Ella Everett Finnimore from northern New York. Her sister, in Connecticut, complained especially of the foreign men her husband hired "right off the boats." One newly hired man was so fearful to her that she did not dare sleep at night until she had tied the door of his room shut.

The following letters, one from each sister, expound on the life of a farm wife.

Finnimore's Farm (Potsdam, N. Y.)  
Saturday Night (c. June, 1901)  
8:30 -

Dear Elizabeth -

This is a most favorable time to have a little chat as every man, woman and child on the place has gone to town and I am holding forth alone. It is so cold I have a fire and if I wasn't half afraid, would be having a real good time. But I am so afraid some straggler will come along and



M. BLANCHARD





FRAN JURGA

rap; but if they do your friend will be wit (?). Yesterday the worst set of men went by here I've ever saw. They camped for a while on Clarkson's hill. Had two poor horses and one of them had been pounded until it was almost killed. Oh it made me faint and furious to see it. There were eight of the villains. I sent for a policeman but they moved before he got here.

Well I have so much to tell you that I don't know where to begin. What would I give if you sat on the other side of this sewing table and we could have one of our old, old, talks -- to be continued after we went to bed ad infinitum.

In the first place I want to know right candidly, How do you like farming? I have days when I like it; this isn't one of them. Farming may be all right and an ideal life for a man, but a woman on a farm is simply a hired man's cook and laundress -- and an all around pack horse if she has any care at all how things go. And I don't believe any intelligent girl who has been a farmer's daughter would "knowingly" marry a farmer, so there! I love nature and can see the beautiful in every field, tree and shrub, but I fail to see anything beautiful or elevating or inspiring in cooking, baking, boiling &c. &c. to fill up a horde of men, whose whole aim is to see how much they can eat and how little they can work. I hate farming, I hate it, I hate it! There now I do feel better, but it is just this way to me. In order to live on this farm Dan works like a dog and puts every cent of it in here to pay men and keep the thing a running while we go without so many things that I could enjoy more than I do hired help. I have worked all day in the garden, transplanting and sowing seeds and who for -- Dan

never eats anything that grows in a garden, so there's myself and the hired help. You are probably saying by this time -- "Oh stop, I've got troubles of my own." If there was any one (of the family) here with me it wouldn't be so bad. . .

Well, I don't know when I've talked trouble so much as this before and I really don't feel it very often and I have lots to be thankful for. . .

Do you go to church every Sunday, or are you too tired? Mr. Robinson says it rests people to go to church. How I long to see your place, but Libbie, in the name of humanity aren't you coming here this summer? Now don't say you can't. If there should be a funeral in the family, you would let nothing hinder your being here. Now let the funerals go and come while we are living. It's a wicked, sinful thing for families to go for years and not see each other. Let us each resolve that once a year at least we will meet. How short the time will be when there will not be any of us here and why do we put ourselves in positions where we must strive all the time. I think there can be too much of a strenuous life as well as too little.

. . . Now write me a long letter, tell me all about your garden, milk, &c. We have ten new holsteins. Sold all our others only the old Jersey. I have about 110 chickens and one duck. We have sold (& on hand) about 200 doz. eggs since Jan. and eaten almost as many & set at least 20 doz.

Now Libbie, do plan in some way to come. . .

Good-bye. Come, come.

With love to all,

Ella.



Meadow Brook Farm  
(West Hartford, Connecticut)  
(c. August, 1902)

Dear Ella,

I was more than glad to get your second as well as first letter and while I have a little Sunday quiet will try and answer one. This is a beautiful day, just cool enough for comfort and the country looks fine.

Fred (husband) is on the route, Ward (son) playing *indian* at the brook, the men away I don't know where, and Kate (hired girl) at *mass*. I just finished washing cans, pails, &c. &c. as I don't dare let her do it . . . put the water on to heat for bottles, and roast in the oven and then stole a half hour nap so I could keep awake long enough to write a letter. I get up so early and work so hard I am sleepy all the time, but I shall have a little let up soon as the farm work is up in fairly good shape and one of the men can at least help wash bottles, but I have had to wash bottles nearly every day since April 1st and bottle milk both night and morning, and do every other old thing until I have been perfectly desperate at times. If a man has a farm given him and enough money to run it, it can be made an ideal life but to try and make it pay for its self is as near to a life in Siberia as anything I can think of.

I may be getting lazy but if I thought I would always have to work and live with hired men as I have since coming here I can tell you death would hold no dread for me. I was thinking today that the Lord himself don't seem to approve of farming for he tries to discourage men from doing it in every way. First he dries them up, then drowns them out, pelts their crops with hail and wind. We had *good* hay and got it in in fine shape but our corn is very backward, and we had one piece of land all fitted to be planted several times when it would pour rain and soak it so it could not be planted and we *just* got it seeded to barley and

clover last night. The best cow we have has rheumatism so we have been afraid she would die and she may yet, and we have had lots of trouble with cows losing their calves, and lots of other draw backs and now the milk trust is determined to run out the farmers. But still we have done better this year than any before and our farm is getting where it produces great hay and we are going to sell our stock next year and sell hay for a while. We could sell our hay for \$25.00 a ton this year and can reckon on from \$18 to \$20 any year and we are going to try that a few years anyway.

This could be made a fine place with *money* but it needs that. Our garden does not amount to much. Fred is no gardener and just when it needs work, there is so much farm work and the dirty men do so little in a day that the garden is left and I have got to where I won't try to do it my self. I could have handsome flowers with a little care but I *can't* add that to my already over worked frame and I *won't*. The weeds may run riot and the bugs feast on the remains of my roses if they choose. No one but the rich has any business with roses anyway. I have some fine varieties but they are in a wild tangle of weeds and grass, but I have reached the limit and although it still worries and troubles me, it is beyond me to help it and I *won't try*.

. . . How I wish you would come down here, Ella. I really think you might. I have had lots of chances to get those towels and will have again but the July sale is over now. Make out a list of music and I will see what I can do. Tell me who wrote that "Sleeping Car" song. I must stop but could write all day. Do write soon and ans. all my questions and tell me you are coming down here.

Yours,

Elizabeth.

Today young women seek out the nostalgia of old clapboard farmhouses. Their sparkly windows seem to glow with peace and contentment. Seldom do we think of the servant to servants. Time has softened the view, just as it will 70 years from now. Our descendents will cherish the plate-glass house with its wall-to-wall carpeting, soft chairs grouped around the cocktail table, hanging plants galore, and kitchen of stainless steel and formica. Seldom will they imagine the life within in terms of the slave to her broken-down push-button mechanical helpers. ♀

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SALLY BAILEY

## 58 YEARS A FARMER

SHERRY THOMAS

Vinnie Petersen Adulka stands, a tall, broad-shouldered woman, looking out over sheep pastures brilliant green from the winter rain. Sheep graze and lambs cavort in the fenced pastures of this steep coastal ridge. Tall redwoods rise up from the canyon. In the valley's crack, between this ridge and the next, the Pacific ocean crashes against a boulder, filling the still air with its sound. Vinnie looks around and smiles, "Well, I'm still up on the hill here. Don't know how many more years I'll be here, but this has always been my home. Been here all my life. I'm the only one that's left. Ed, my son, he's the only Adulka that's left on this hill, and I'm the only Petersen."

As she walks the pastures, checking for new lambs, an older lamb comes racing up to her, nuzzling against her legs. He's a "bummer", an orphan lamb she's raising on a bottle. She stoops to rub his back, and he follows her as she walks on.

"I like animals. I sure do. I always have. We were the first ones to have sheep on this hill. In 1912 my grandfather got the first sheep, year before I was born. I've been around sheep all of my life. He got white faces. We always had Merinos and Corriedales, we never did have any Suffolks or anything like that.



Merinos and Corriedales are among the "fine wool" breeds, prized for their wool, until synthetics took away most of the wool market. The forty-five Suffolk, or black-faced, ewes Vinnie keeps now are primarily meat animals.

"When my grandfather came, this whole ridge was nothing but timber, with just a little trail, no road. He came from Germany. His brother had homesteaded 645 acres here. His name was Erik Hensel and he died here when he was 21. So my grandfather came over to settle the estate, and he stayed here. He liked it. He made ties from the timber, railroad ties from those big redwood trees. Then, when the land was cleared, he got the sheep. My mother was his only child. She was born in 1882. The family moved into the house on that place two years later, in 1884. My grandfather built it himself. He handhewed all the beams, and had the lumber milled down in town."

The 600 acre Hensel ranch, where Vinnie's mother and Vinnie herself grew up is just down the road from the Adulka ranch where Vinnie moved after she married Sanders Adulka. "Right next door, really," she says, "I didn't go far."

She leads the way back up through the orchard to her house. The old Adulka ranch house, down near the barn, houses Vinnie's son, his wife, and their baby daughter.

Her house is located at the top of the apple orchard, near the one-lane dirt road where stage coaches passed in Vinnie's childhood. Looking westward from Vinnie's door, the ocean fills up the whole horizon, touching a barely defined sky in the distance. Vinnie leads the way into the house, where she builds a fire in the fireplace and settles down near it.

"My father, Robert Petersen, was born in Sweden and came here to work for my grandfather. He cut ties out in the woods, and that's how he met my mother. He died when he was thirty-eight, when I was just two years old."

Vinnie's mother was left a widow, with five children under the age of six and two aged parents to care for.

"She took care of us all! All the kids, the grandparents, that's seven mouths, plus her own, she had to feed for many years. She did all the plowing and planting, cut all our own wood, milked the cows, raised all our food, made all the clothes for all of us. Five little kids, you know! My father died in 1915, my grandmother died two years later, and my grandfather in 1925. Mom never remarried. She kept that whole place going all by herself, all the rest of her life. With no outside help, neither! Not ever, no sir! All alone. Just her and me."

The farm in 1915 had 100 sheep, 10 dairy cows, a flock of chickens, several pigs, and a large garden.

"When my father died, Hazel was a little tiny baby, my brother was a little over a year old, and I was two. Mom had a harness and when she went to the barn to milk, she'd put my brother and me in the harness and tie us to a hook on the barn wall. Elizabeth and Frederica (they were four and five) were big enough to take care of themselves. She couldn't take three little babies into the barn with her and just turn them loose.

"Nobody could do all that she did, today. No way! We raised all our own vegetables, and lots of potatoes. We stored them underneath the house in the dark room. As they shriveled up and got older, time it came to plant potatoes again, she'd boil them up and feed them to the chickens. We raised all our own chicken feed; we raised a big flock of chickens for eggs. Raised corn and oats. There was a thrashing machine that came through here. They'd thrash the oats out of the hay for us. We'd pay them in cash, but it was very reasonable.

"And we raised all our own cow feed. We plowed the fields with horses. Ten or twelve acres of oats, that was enough to feed all the animals. We cut it and shocked it in the field and then hauled it in with the horses and wagons. Then they put the shocks through those thrashers just like that. Never put it in those bales. What we kept for hay just went into the barn loose. We fed the cows and the sheep oat hay.

"The last few years we raised hay over there, we had a tractor and a disc but before that, it was all with horses. Then in the last years we quit, it got cheaper to buy alfalfa hay. Nowadays it wouldn't be, but alfalfa was quite a bit cheaper then, you know."

The ranch in Vinnie's childhood was still part of the last frontier, without cars, running water, or power.

"I remember when the horse stage went through here, oh yes, and it used to get stuck on that hill down there. The horses wouldn't hardly pull that stage up that hill in the wintertime. Mud! There were ruts in that road a foot deep!

Vinnie started helping with the farm work as a young child, milking cows when she was six years old.

"The older girls were helping with field work by then, but not too much. They helped with the wood and they packed water. No running water then, we had to pack it all from the well. Frederica and Elizabeth, they helped my mother with the housework. I never did very much of it. I didn't like it. Never did any cooking until I moved over here.

"My second sister, Elizabeth, and I were the tomboys. I still am. We did the farm work. My oldest sister, Frederica, never did anything in



the way of farmwork. But Elizabeth was a real tomboy too. She'd help round up the sheep and she helped butcher. And she did the hunting. My sister started hunting when she was seven years old. Rabbits, quail, and deer. She used a shot gun, and then when she was nine, she got a rifle. She fished and hunted and helped on the ranch until she got married. She was just seventeen then. They all got married at seventeen. Not me, no, I got married when I was thirty-two.

"We did everything ourselves in those days. We washed all our clothes right down by the spring so we wouldn't have to pack the water up to the house. We had a fireplace down there made out of bricks and a big tub. My mother washed all those clothes by hand down there.

"We had a wood cookstove all those years, and then the last years we had a gas stove in there. In the winter time, though, we still cooked on the woodstove. That woodstove and the fireplace was the only heat we had in the house, you know. Took a lot of wood. Gosh, a lot of wood! My mom cut most of the wood until we got big. All those stumps from the logging, she'd saw them off with a hand saw and split them up. No chain saws in those days.

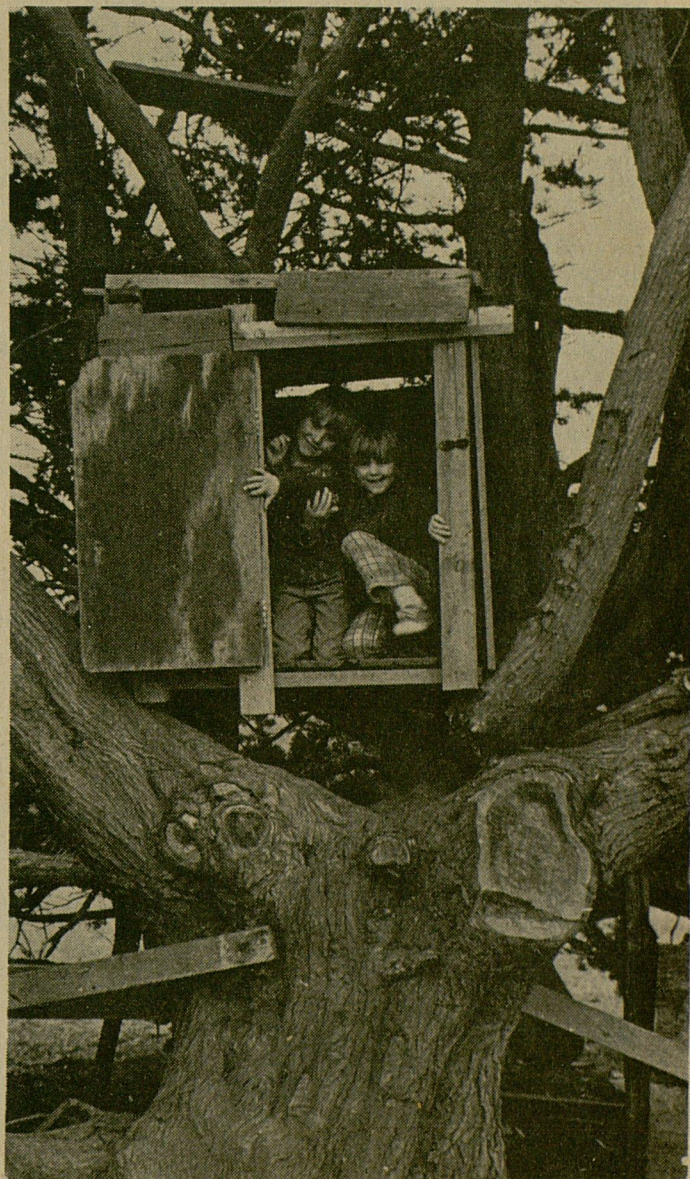
"My mother'd skim the milk and make butter. Then we used the separator too, and sold the cream. We separated every day when we were selling the cream. It went to the creamery, where they made cheese and everything. We used five gallon cans to carry it in, you know, those old cream cans. Someone offered me \$50 for one not long ago; they're antiques now. When we were small my mother did all the separating, but later on, we all helped.

"I'll never forget. My youngest sister, I guess she was about nine years old, and she put her hand on top of the separator to stop it when we were through separating the cream. And it pulled her hand into that thing. Whew...cut one finger almost off and stripped three others. We never had any cars up here then; we rode horses. So we rode down to the neighbor's and got him to come with his car and take her down to the doctor in the nearest town, old Dr. Simms, and he cut the one finger off.

"For money, we sold cream. We raised the calves and then sold them. We sold them to the butcher in Redvale. He always bought our calves. Sheep too. We never sold lambs. Wasn't no such thing in those days, no such thing as taking them to

the auction. We kept them till they were a year old and then butchered them as mutton. When I was ten, Elizabeth and I started butchering. A fellow named Jim Hendricks lived down Glenn Road and he showed us how to butcher. Oh boy, could he butcher fast! We just slit their throats. We dressed them out ourselves, my sister and I.

"From when I was thirteen on, we peddled mutton. We went around and took orders; like if you was the next door neighbor and you wanted a roast or chops or stew, we took your order and then we'd butcher four to six a week. There was a lot more money doing it that way. They sold for 20¢ a pound, compared to 5¢ or 6¢ a pound on foot. Depending on when we needed the meat, we'd do the butchering the night before. And then Mom would get up early in the morning and cut out what people had asked for. People knew it was fresh meat, then they could keep it a day or two if they wanted. We didn't have any refrigeration then, you know, so we sold it fresh.



SALLY BAILEY





PAM SPAULDING



"That was a great life, I tell you.

"We didn't need money for much in those old days. We didn't buy much feed, just a little bit of chicken feed. We bought tools, shoes, cloth for making clothes, some staple foods. Taxes were \$35 a year for 514 acres.

"We bought the staple foods that we couldn't grow ourselves. But beans, corn, tomatoes, meat: my mom canned all that from off the place. She cold packed it, you know. No deep freezers then. And we made salt pork in big crocks. And with pork chops, she'd fry them first and melt that lard and pour over those chops in crocks and put the lids and put them down in the cellar where it was cold and they'd keep all winter.

"In 1929 and around then, it was bad for everyone around here. But my mother, she always kept a couple years' living put away ahead of time. About three years' living. I don't know how she ever, ever did it, but she did. She sure had a good head on her! We were the best dressed kids in school all through the depression. And always had plenty to eat; 'course we raised all our own food. We had everything that we wanted. Couldn't ask for more.

"During the depression, the wool prices went up to \$1.50 a lb. But you couldn't sell it; nobody would buy it. And then when they started buying again, the price went down to 7¢ a lb. My mother didn't sell it that year, either. She held onto all the wool for one more year. Kept it three years, I think, and then sold it all the fourth. So it was a good thing she had those savings!

"We got up real early, once we'd started to school. We had to walk about two miles to school. It started in July and then we went till the rains set in. We had to walk over muddy narrow roads, couldn't go in the rains. After they were over, say in March, we'd go back to school and then get out in June. But then there was rains in March too, and lots of times we was trudging to school in the rain!

"I went to high school to Edgeville, for a while. I went every day on the mail stage. The mail stage went by here at 7 o'clock in the morning and I got home about 5. I had to get up about 4:30 and get the cows in, milk the cows and do all the chores. And then in the evening when I got home, I'd do the same thing. And in the winter time, I'd have to go walk all over the ranch and see the sheep, how they were doing with their lambing. I enjoyed that work. I still do. And then, oh wow, I had to do all my school work besides.

"I was the only one milking by the time I was fourteen; I did it all myself. I started helping my mother when I was six. But by the time I was fourteen, Frederica was married already, 1927. And Elizabeth got married in 1929.

"For years, it was just me and my mother. Hazel left home about 1932. My mother died when she

was seventy-eight. By then, I did the sheep all myself. We had sheep there till the day she died. I helped with the sheep even after I got married and came over here. It's just next door, really. I didn't go far.

"Towards the end, I guess I done nearly everything. We made wood for Mom then, and hauled it over. But she took care of herself until the day she died. Just sat down one day and had a heart attack. Was dead before she ever hit the floor. Isn't that a nice way to die? The day before, she was washing all her clothes. She still did it by hand, you know, and done all the cooking and everything.

"Well, it was a good life. A better life, I think, than what the people have nowadays. People make too much money these days and I don't think they're ever as happy as we were. We were really a happy bunch of people on this hill.

The Andulka ranch, where Vinnie moved when she married Sanders Andulka in 1945, was 927 acres. Old Mr. Andulka died in 1945, leaving two sons, Sanders and Owen, on the ranch.

"When I came over here, there was my husband and his brother here. His brother stayed till he got married in 1966, then he wanted us to buy him out. We had to sell that other ranch to buy him out. I only have 238 acres left now, out of all that. But it's enough."

Vinnie and the Andulka brothers ran 350-400 head of sheep on the Andulka place, and she kept another 100 head at her mother's. They had some cattle and a 17 acre apple orchard that old Mr. Andulka had planted in 1912. Her husband worked in the woods, falling trees, in addition to ranching. Their daughter, Margaret, was born the first year they were married, in 1946.

"My life didn't change a bit after I got married. I kept on doin' things I done before, picked apples and took care of sheep, and whatever. And, of course, I had to keep the house over here and raise my two kids. Margaret is 32 now, and Ed was just 28. He's married now and he and his wife live in the old house over there. He has a daughter, and Margaret has two boys and a girl; that's her three kids over there." She points to another photograph on the wall.

"We always had a nice garden here too, and chickens, milk from the cows, meat from the sheep and calves. In fact, I had a real nice garden here two years ago, real pretty. But all the spading and digging is getting too much for me now, and besides, who's going to eat it all? My neighbors all bring me vegetables now. See that cabbage on the table? A neighbor brought that by this morning.

"My husband and I worked together at the lambing time. We field lambed. If there was a lamb born that looked a little weak, or if the weather was real bad, well then, we'd bring the lamb and that



ewe up into the barn. Had to get a good start, or that lamb'd die. Just like those three lambs I've got in the barn, right now.

"I had to graft a lamb onto another sheep just a few weeks ago. This sheep had a lamb and it must've been born dead, and another had these twins. So I skinned her lamb out and put the skin of that dead lamb over one of the twins and 'grafted' him onto her. Oh, she took him just fine; she just loved him! You just leave that skin on overnight, that's about all it takes. Starts to smell pretty bad after that.

"For quite a few years I sheared the sheep by hand over at my Mom's, but mostly we hired the Indians from the reservation near us and they came and sheared the sheep by hand."

"Then in later years," Vinnie continues, "the Andulka brothers bought an electric shearing rig and I used it quite a few times too. In fact, I just got done tagging the sheep here, a few days ago. My husband could shear, and sometimes we'd shear all the sheep. I learned to shear pretty good with a machine. Too hard for me to do it all now, though. It's pretty hard on your back!

"That young orchard over there, that 25 acre orchard, we planted all that after I moved over here. It's about 13 years old now. We planted those 25 acres ourselves. My husband dug the holes with his tractor and we planted those trees.

"Small farms can't make it anymore, no way. A person can't make a living on a small place. They've got to do something else. If you were dependent on a 100 acres, you couldn't make it. There was a day when you could. Like years ago, when we were kids, you could make it. Because everything was within reason. Everything is out of reason now.

"And wool prices have gone all up and down. One year it was up over \$1.00 a lb., another year it was 90¢. Then it was 25¢, 30¢ a lb. Actually twenty-five, thirty years ago the price of wool was just as good as it is today. That's why the government gives us a wool incentive now, people can't make it. This year they allowed us 99¢. I sold mine for 75¢ and then the government paid the rest.

"I don't need much money, but I like to see something *pay*. Apples now, they were a good price this last year, I thought. \$105 a ton for the juice apples and \$140 a ton for applesauce apples. Of course, I don't know what they got for them after they bought those boxes and got them to the city. I imagine they got a very good price. Still, I did pretty well with apples this year.

"You have to spray the orchards, spray the apples. Well, I know years ago before they started to use DDT here on these trees, we used to spray with nicotine sulfate and that didn't

bother the lady bugs. There were millions of them all over the place. The DDT killed all the lady bugs around here; and there was no such things as aphids or mites, or red spiders when those lady bugs were here. Then when we used that DDT it killed all the lady bugs. They should never have allowed that stuff, never. I don't know why we started using it. We just listened to the agricultural advisors or whoever they are, and they told us this was the best stuff to use.

"No, I never thought there was anything I couldn't do because I was a woman. Not with a mother like mine! No, sir! Housework might have been women's work, but it wasn't ever my work, though! I never did a bit of housework till I was thirty-three years old. Oh, maybe a little, but very little. I did used to help my mother wash clothes by hand before that time. That wasn't too bad. I still don't like to cook. No way. Do you like to cook? Have to have a good meal now and then. Oh, I'll make up a big stew and eat it for four or five days.

"I had a little over 300 head of sheep when my husband died. But half the land was already sold, so we could buy Owen out. So after my husband died, I sold a lot of the sheep. Lord, it was so much work for me to do, all alone and at my age. And then, you see, with the land sold, I'd've had to keep them on the neighbor's land and I didn't want to do that. No way. I just have the 238 acres left now, and just two acres of the orchard. Around 50 sheep.

"These 238 acres I've got left here, I was offered \$225,000 for last year. Isn't that ridiculous? Money doesn't mean anything at those prices. That man down the road, he paid \$350,000 for his place and it's just worthless. The ground's all sour and sand, won't even grow grass or nothing. It's just worthless!

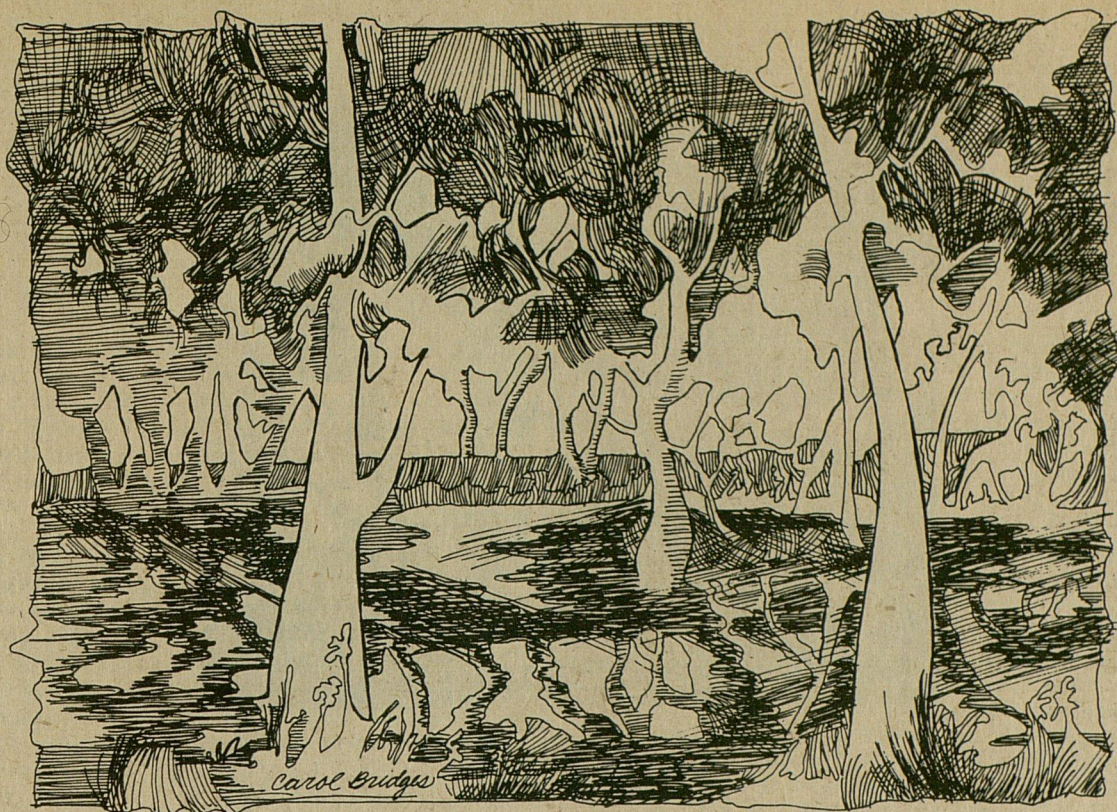
"My lambs are comin' awful late this year, should've all been born by now. Those two rams were busier fighting than breeding this year. Next year it'll be different, if I'm still around, if I'm still alive. Should last a bit longer, I guess. Seventy is a good age. Three score and ten. That's all we're promised! Not so many of the old timers left now. But still, it's been a real good life, a real good life!" ♀

*Note from the author: This interview is from a book I'm working on. The book is made up of interviews with women who've spent their lives farming. I will be traveling across the country in the Spring, doing interviews. I need suggestions from Country Women readers of women in their areas that I should meet and talk with. Most particularly, I need leads to black, Chicana and Indian women farmers and farm workers. My thanks to those readers who have already written me.*

Sherry Thomas  
Box 54  
Albion CA 95410



CAROL BRIDGES



to my land/  
goodbye

when I came you rained  
and stormed  
for 40 days  
and 40 nights. lightning

struck. the  
cows hid. rivers  
flooded and the  
creek was full. I

stayed 4 years  
and you turned  
on your heel, dry  
as a bone, till

now: the field  
is rising: trees  
tilt, showing  
me their roots, even

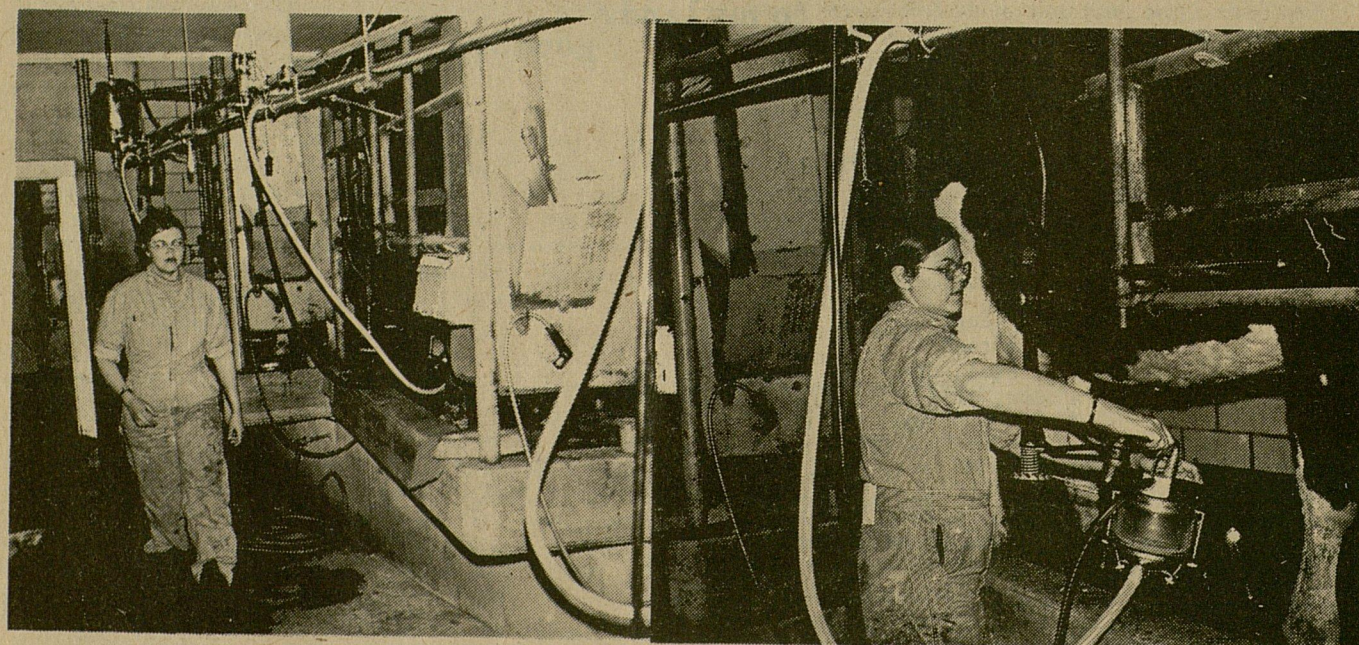
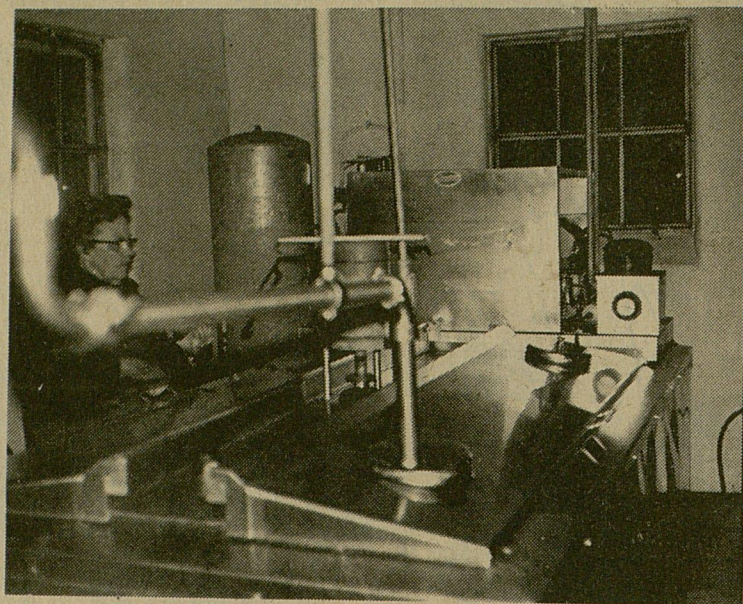
trees aren't  
permanent: the wind  
is a gale: lightning  
strikes my dreams: night

is day; my eyes  
are rain. I  
will leave the  
40th day. I

will leave on  
my ark  
but I leave  
you my eyes  
forever. (I  
will not see  
the 40th  
night).

ALMA VILLANUEVA





After my father's death in October, 1971, my mother and I decided to try to keep our family dairy farm going. We had the help of one hired person and the much needed expertise and full support of a long-time farmer friend and his wife.

We lasted until March, 1974, when ever-rising feed costs and other expenses forced us out. We sold our forty milk cows and twenty heifers and all our machinery at an auction on March 18.

These pictures were taken the night before the auction. I'm in the milking parlor doing the last sad milking; my mother, Dorothy Baker, is in the dairy at the milk tank, getting ready to take our last jar of milk.



# OCCUPATION:

## FARMHAND

LOUISE ARONOW

How does a starry-eyed city woman find a job in the country? From an early age I dreamed of living on a farm, and started asking the advice of the few "country hippies" I met in Boston. They suggested just helping some country people. Since I had no friends established in the country, I headed west seeking a job as a farmhand.

I spoke to many people about my interest in goats, and checked out many possibilities (including a twenty-five head herd in smoggy Anaheim, Ca.!) before settling on a small family goat farm in Eureka, California. I had sought out personal ads saying "farmhand wanted" or "farm commune needs members" but none of them worked out. Word of mouth is still the best method of communication available.

When I arrived, I didn't even know how to chop wood and start a fire in my wood stove. At first I related to the goats like dogs, because dogs were the animals I was the most familiar with. After being taken advantage of - just like a substitute teacher in junior high school - I realized that they have their own social structure and customs. I learned to milk goats, to recognize symptoms of many diseases, and the conformation of a show animal. The main drawback to the job was shoveling manure. Pulling a cartload is hard work, but a good way to get strong. Working for room and board freed me from the forty hour work week routine, and gave me time to pursue some artistic projects. After a while though, I realized that woman does not live on bread and goats' milk alone, and I got a paying job so I could at least buy gas for my car.

I recommend a farmhand job for anyone curious about country living. Without any investment or management responsibility, you can see if you really like it. Needless to say, there are many more opportunities for men than women as farmhands. The muscle-work can be handled by any woman, but some must work up to it. When looking for a job, I felt discriminated against as a

single, since some great opportunities said "couples only", not necessarily heterosexual. I realize, however, that a couple is a very practical work/social unit; farm life can be lonely. If you leave your city home to seek your fortune in the country, you may end up in the boonies where it isn't easy to meet people. I had to move on for that reason. If you move to a community where you know people, or have an activity off the farm such as work or school, you will feel less isolated.

To avoid misunderstandings later on, when you find the right work/living situation, make sure the work expected of you and your space are well defined. There were times, as a farmhand, when I just wasn't inspired to work hard, to put out energy for someone else's homestead. I will confess that jealousy ate my energy - I needed something to call my own. If I were to work as a farmhand again, I would request a little garden plot, and keep a few animals of my own.

A farmhand, like a good servant, can become *almost* a family member. I have felt myself in that twilight of friend-servant, and found it uncomfortable at times. Sometimes we went to the movies together and sometimes we didn't. Sometimes it was more difficult for my employer to give orders than it was for me to take them. Unfortunately we were defined by our roles to a certain extent. Communication is essential to keep these roles comfortable.

There are probably many established homesteaders reading this, who are tired from a full day's work and wish for some time off. If you have space and enough food for one more woman, you may find a farmhand very beneficial. Sharing chores can relieve the stress caused by overindulging on animals and garden plans. Certainly, it takes time to teach someone how to chop wood, and not all hopeful country dwellers will adapt, but much will be gained with more free time and the ideas a new person can bring to your home. ♀





# THESE QUIET MOUNTAINS

## LUANNE ARMSTRONG

This old farm, these quiet mountains...who I am intersects here with the beauty of this place; my lifelong love affair that has shaped my being on this earth for as long as I can remember.

I have thought a lot about my relationship with this farm. This tiny patch on the earth's surface, my place, my part of the world, has been my teacher more than schools or books or theories. Beyond my commitment to ecology, to women, to freedom itself, lies the child who played alone over these hills, and listened to their secrets, saw gods and myths, loved animals, learned to love the earth and farming.

I left here, of course, for many years, and after marriages, and children, and university, and millions (it sometimes seemed) of books, I felt as if I had indeed learned a lot, enough to feel "liberated", enough to know what life could give me, and what it could not. But living here, I can reach to touch my childhood at any time, and I realize that the girl I was had already learned the essentials, but that my grown-up self had to re-learn how to be at one with the earth, with mountains and animals and plants and silence.

Those things, of course, weren't valued when I was a child, and eventually I learned to be ashamed of wanting to be a farmer, of being a "tomboy".

Now the circle, once so fragmented, is closed and I stand at the center, contented to be here, vindicated in a way, but mostly just contented to be at one with my feelings, having learned at last what the farm has so patiently been teaching me all these years, how to simply be here, how to occasionally shut off my busy brain and tiresome feelings, and be, like the plants and animals and the land. Such being is pure joy, simplicity in its clearest form, and while I haven't learned it very well, and get scattered and mixed up and carried away by all sorts of dumb things, it's always there to come back to.

Roots are funny things. People's roots, that is. Sometimes, when I'm working, or standing in the top of an apple tree in spring, or hoeing corn with the sweat running down my back, feeling that I'll never straighten up again, or sitting at twilight watching the deer come down to the orchard, I feel this farm as a part of my body, intertwined, nervous systems connected, blood vessels, everything. I wonder sometimes if I could leave now. If I was forced away, would it leave such a gaping wound in my soul that I would never recover? I wonder. Ridiculous, I suppose. The earth is the earth, wherever you go; it's under your feet, but this part of it, is part of me. I'm bound to it now, and for me, such belonging is freedom.

So the farm is my teacher, and I am its servant, or its partner. Sometimes I wonder about the future. Will I go on, live here as my parents

have done, year in and out, watching my children grow and leave, chores every day, small bits of gossip, friends to see, growing more familiar each year? Will I marvel every year at the garden and the new calves, dance barefoot in the mud in Spring, say hello to the world every morning? Can I go on living here, growing and learning, and not have it get to be just routine, comfortable yes, but no longer precious new every day?

Well, that's the challenge. But for now, the fact that I know every inch of this small place, have worked and sweated over most of it, have gone to it for comfort whenever life got too painful, that I am here doing what I enjoy most and continuing to learn, is enough.

When I was a child, this farm was my world; I peopled it with dreams and fantasies, and mountain gods. Now I am grown, and watch my children run over it finding their own dreams hidden in its corners, their own magic places. I hope they learn the secret magic that I did, how to stand in silence until a muskrat comes to sit on your foot, how to climb rocks, and ride horses, and play with calves, and most important, how to belong - how to feel a part of the great wonderful mystery of the earth.

But they have their own secrets to learn, and though I try and teach them what I can, it's not something that can be taught, only felt, only learned slowly, over a period of years, so that it comes as a surprise, eventually, to realize just how deeply one has learned it.

One final benefit from living here is my own independence. These days, it sometimes comes as a surprise to think of myself as a woman in the world's terms. I live here, I do what is necessary, what is dictated by the land and its seasons. I care for myself, my children, my animals, by myself.

Three generations of us live here now. I'm twenty-nine, I have four children and my parents live next door, in the big green farmhouse across the yard, close enough to run over for coffee in the morning, far enough away for privacy.

Our farm is not large, but it's a comfortable size. By that I mean it's large enough to provide us with most of our own food, and a surplus left over to sell, without a crushing amount of work for any of us. My father has a full-time business away from the farm, so I do the fruit, the gardens and most of the animal care. My mother and I share some of the canning and freezing and my father and I generally get up the wood together, which is a large job as we heat exclusively with wood.

We actually have two farms, one of thirty acres, used for summer pasture, and the one we live on,



over a hundred acres, with only twenty viable for farming. The rest is mountainside, cliffs and trees, the latter a source of firewood and of logs for my parents' new log house.

We have about ten cattle, a milk cow, my riding horse, fifty chickens, three goats, two dogs and innumerable cats. We usually raise a couple of pigs and some geese.

The farm itself is very beautiful, half wild and half tame, on the shores of a very beautiful lake that's about eighty miles long and about five miles wide, where we swim and fish, surrounded by steep mountains which are still mostly wilderness (though the logging companies are doing their best to change that). We have three large gardens and an orchard with a variety of fruit trees. We also grow strawberries, gooseberries, raspberries, currants - in fact, a little of everything. The only thing we grow in large enough quantities to market commercially are cherries. We sell or trade our other surplus to neighbors or tourists or the local health food store. We usually make about fifteen hundred dollars in a summer, if we're lucky and it doesn't rain the whole time. The main value of the farm to us is the amount and variety of food it provides us with.

We are on the edges of a primarily agricultural area. South of us, around Creston, farmers raise apples, wheat, cattle, potatoes, and various kinds of fruit. However, along the lakeside, most of the larger pieces of land have been broken up for summer and retirement homes. Both population and land prices have increased dramatically over the last ten years, and unfortunately, our land is now worth a small fortune.

I say unfortunately, because we have no desire or idea of selling, but are afraid the government will eventually raise our taxes to impossible heights. Right now, provided we make a specified

amount of money off the farm, we only pay farm taxes of a dollar a year. However, the standards for being considered a "farm" are rising every year.

I am caught in the classic double bind of not being able to make enough off the farm to support myself and four children, yet not wanting to take a full time job, of which there are very few available. In the winter there's welfare, but that's a dead end. I think I will eventually have to go back to school, as so many of my other single woman friends have done. We used to have a women's group with eight rural women members. There are three of us left. I can't imagine living or wanting to live anywhere else, but economics certainly can create some pressure.

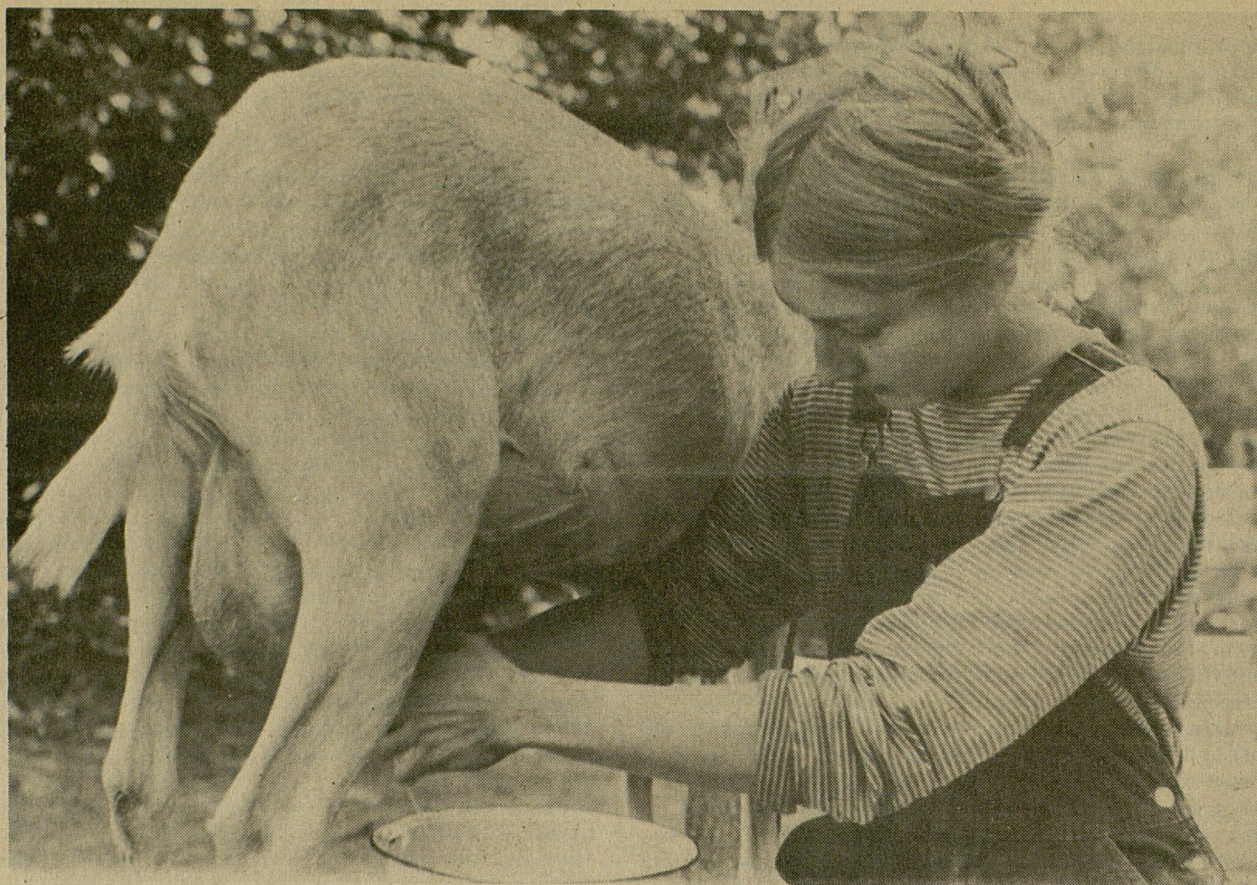
Sometimes it seems that this area is changing so fast that both the farm and I are anachronisms... sticking doggedly to old established ways, while around us the newly retired and well-to-do create their own expensive lifestyle. When I was growing up this used to be a rural area, with community potluck suppers and a feeling of mutual interdependence. Everybody had a few animals, fruit trees and a large garden, and those who didn't were looked down upon as lazy slob!

Now, to our neighbors we're something of a mystery, almost quaint. They ask us why we work so hard at farming, why we don't sell out and take it easy. Well, we have all kinds of reasons of course, we like the life - the freedom, the independence, the health, and the good food but sometimes I think it's simpler than that, it's mostly just a habit, farming is, and one that we couldn't break even if we wanted to. So, provided the government leaves us alone, and in spite of the difficulties of making any money at it, we shall in all likelihood continue to live on this farm, grow what food we can, work our backs off when we have to, and deep down in our hearts, enjoy every minute of it. ♀



PAM SPAULDING





JOAN MCCRADY

## TEAT FOR TEAT

VALERIE SUMMER AND REBECCA WILSON

Valerie: I am coming up to my sixth winter in the North Country. The first two years I spent living on an isolated small farm with my (ex) husband; barely holding on, trying to build a farm, visiting Rebecca a lot. I went to an agricultural college for two years and, in the middle of that, left our faltering homestead and moved to Birdsfoot (a commune of five people at the time, now fourteen). Here I found an opportunity to work in a supportive, creative environment. I began to learn that farming was indeed my heart's desire. I love my life.

Rebecca: In 1972 I left San Francisco, where I'd lived for five years, heading East with \$2,500 to buy a farm. I decided to become a farmer during some emotional crisis and clung to the dream through thick and thin, including the birth of my first child, break-up with one man and joining up with another. I came to Lisbon, in northern New York, where land was cheap; bought my dream farm and settled in. Trouble in Paradise showed itself soon enough and in April of 1975 I took my four year old daughter and followed Valerie to Birdsfoot. We've lived here ever since, working on developing a good dairy herd and since the winter of '76-'77, a small scale yogurt factory which will be legally open this fall. I now have an-

other baby (1½) and an ongoing relationship with her father. I love my life too.

We were very excited to have a chance to write about women in farming, since it's a subject dear to our hearts.

V: When we first moved to the country and got goats, I hadn't ever really thought seriously about farming. It was the second year before we even had our hay cut, before we knew that the stuff that grew out there was hay or had anything to do with hay! We were so slow to learn. It was such a different world.

R: I had an image of what farming was. I knew that it had a lot to do with cows and tractors and barns! If you didn't have those things, you weren't really doing it.

V: One of the biggest attractions of moving to Birdsfoot was actually being able to farm. I remember having this image of myself getting up in the morning and working all day doing field work. Field work was always the one that got my heart, and it still does.

R: See, using the tractor!



V: Yeah, the tractor. I could never believe that I would be in love with a tractor! I love that work so much! It reflects an aspect of myself that I like. When I look at my life, and it's doin' that, I can say "yeah, yeah, you do good stuff."

R: I like the self-image of being a dairy farmer too. The only part that I'm uncomfortable with is the word "farmer" because to me it connotes males. I wish there was a word...

V: Other than farmette!? Or farmerette! There's always the image of the farmer's daughter, and even the farmer's daughter never runs the farm. She probably milks. Nobody ever gave those milk maids enough credit. Through history - they knew their cows. They fed them, took care of them. They were there at their births and their birthings.

R: It's amazing how the dairy industry has gone from being really, really a woman's trip to being totally the reverse. I mean when you get literature it's always "we're having a meeting and you can bring your wife". It's so male-oriented that they don't even include the possibility.

V: In this area, I know of one farm that's run by a woman. Since her father's death, she has taken over the whole operation. She has a lot of Holsteins - a big place. I don't think I know of anyone else; except both of the local state university experimental farms have women herdspersons.

When I was at school (and this was three years ago), well over 50% of the students in the agricultural department were women. With more and more coming all the time.

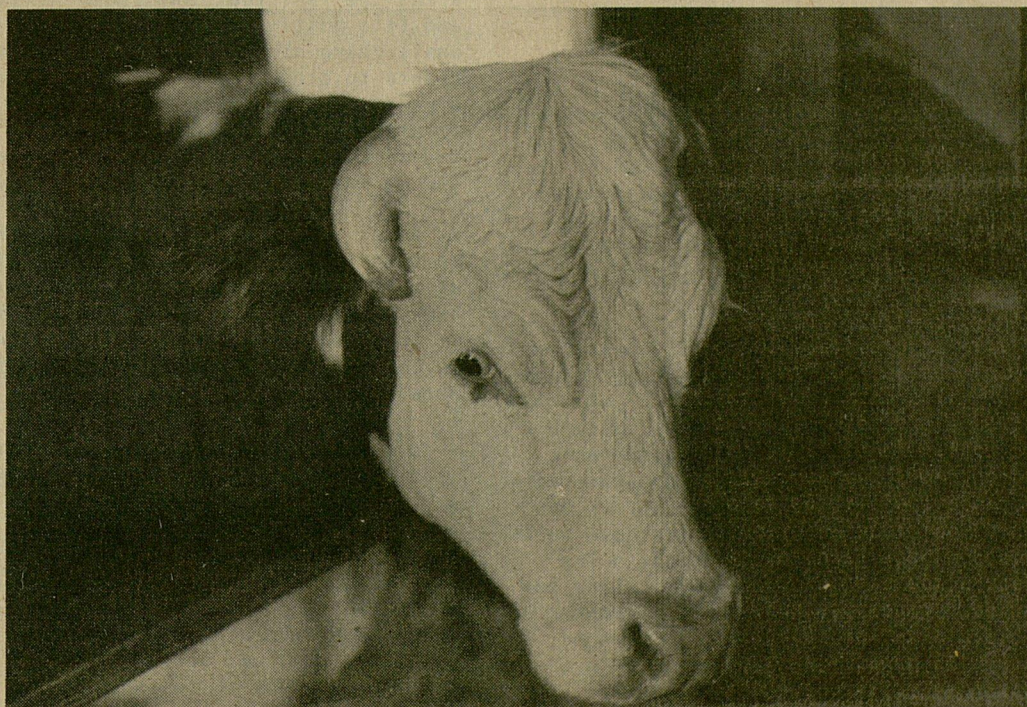
R: Were they doing mostly lab or vet assistant or were they into farming?

V: In the vet assistance and clinical classes there were hardly any men. In the field crop production, animal breeding and other classes that were under the heading of animal husbandry, it was about 50-50. In addition to taking animal husbandry courses, I felt I had to take the tractor and engine courses, and I would have liked to have taken a welding course, because it was clear to me that if you are going to farm you have to know all this other stuff. Most of the other women had not made that association. They shied away from any mechanical classes. I don't know what they had in their minds to do. There are a lot of other parts of the industry to be in; like inspectors or food tasters or home economic stuff for the Extension Service.

R: I think that women belong in farming. I think that that is probably the most concise way that I can say it. Certainly, anyone who has an inclination or a desire, should follow it. Women should definitely not be intimidated by the male orientation of the profession as it is today, because I think there is something innate going on here. I think that there is a way women approach life, which is essentially what farming is to me...

V: Cycles.

R: Right! Who understands cycles better than women? The industry takes a high consciousness creature like a cow and treats it and describes it and discusses it as though it were a machine! How can anyone hope to succeed when they are bucking nature in such a fashion as that?



JUDITTE FURAH



V: I have heard farmers who were explaining something about a cow say "AW, yeah, they're just like women." Very deprecatingly. It's a semi-dirty joke that women are just like cows. Instead of appreciating our understanding and what we can teach them they laugh at it.

R: Farming brings you pretty close to the essential life core. It doesn't even matter if you have animals or not; even if you're growing straight, gigantic mid-western grain fields. I feel very good about being able to be in touch with that all the time. It makes a lot of things somewhat easier. Questions like "Life" and "Death" seem more handleable. You can deal with it; you can get a fix on it; you can do it with some dignity.

V: For me it has a real close relationship with the word "security". When I was living at Sundance and the whole world was falling down around me, I remember being aware of how strangely secure I was, even though I was going to be changing where I was living and moving out of a marriage. My one security was in having learned about the seasons. You can count on them. No matter what happens there is this total reliability in their changing. I don't have to get security from this person or from any of them other people!

R: It's important to me that farming is something that I can do and still have my kids. You find that so rarely! A job that you can do to support yourself, at home, that fits in with the best things that I wanted for my kids.

V: It's not something "other" that you go away and do. It has to be your entire life.

R: Historically speaking, farmers were what everybody was. There were very few people who were what we now call professionals. Now to be a farmer is unusual.

V: We know how quickly people drop out of it too. As each year goes by, more and more of the neighboring farms are selling out because of the economic pressure. It's one thing to be used to the hard hours, having to milk no matter how goddam sick you are, all the machinery breakdowns etc. But then there's the whole other part of having to deal with being pushed out of your life, your vocation.

R: That's the saddest part to me. The small farm is in need of a lot of support to keep from becoming an extinct species. There has to be some kind of parity. Size has been the answer recently but it won't work. The soil is dying from overwork and poison. People are taking the food produced and turning it into chemicals. Those middle people between the consumer and the farmer have to be pushed out of there, because they aren't doing anybody but themselves any good at all. It's bad, bad, bad no matter how you look at it. Farmers don't get anything for their products and consumers eat total shit. Meantime, the guy in the middle, who turns it over, gets rich.

V: Backed by the government. You saw the pamphlet that went through here about how the consumer has a psychological need for colorings in food because otherwise they wouldn't believe it was fresh! There's too large a schism between the producer and the consumer.

R: (Laughing) What we're talking about is an agricultural revolution!

One distinctive thing about farming is the ability to do a whole process. It's so nice to have calves that we delivered, right in our own barn, now producing milk that, in our own yogurt factory, we are going to turn into good food that we can sell and make a decent living from.

V: That sort of system really permeates everything here. You get so totally used to being the person you rely on to do everything from scratch, every time. It's incredibly expansive. However sometimes it's a real blow-out, too. Sometimes I just get tired of having to learn all these systems. That's where we're really lucky in living with other people. In fact, I don't know if I could maintain with just one other person.

R: I couldn't.

V: It's a real question. A lot of our friends are trying to set up some kind of farming situation - people who are just now buying places and you look at them and you try to say something like, "Do you have any idea how hard this is going to be?"

R: I guess what you do is just keep trying to live your dream.

V: Strangely enough, it's been my experience that women around here are accepted as farmers considering the fact that there aren't really that many and it's mostly dominated by men. I think the basic thing about farming is that you have a chance to prove yourself. Just like we don't get a great deal of flack for being the commune that we are. People see that we produce. That we work and we come out with these good organic products and we make them available to the public.

R: I have to second that and I think it's an important insight because I expected to be laughed at and not taken seriously. If anything, I was looking for trouble, which usually produces it. It just didn't happen. Everybody took my efforts seriously. Right from the vet to the feed store people.

I just would like to say to women interested in farming, do it if you want to because it can be done. It's a good way to spend a lifetime. It's exciting. There's a lot to learn. There's a lot to learn about yourself. It hasn't yet gotten to be a drag. Repetitive as it might seem sometimes, doing the chores, doing the same chores, doing those chores again, it's still new. It's still not dull and boring. I'm still as committed to it as the day I started. ♀



# Hands

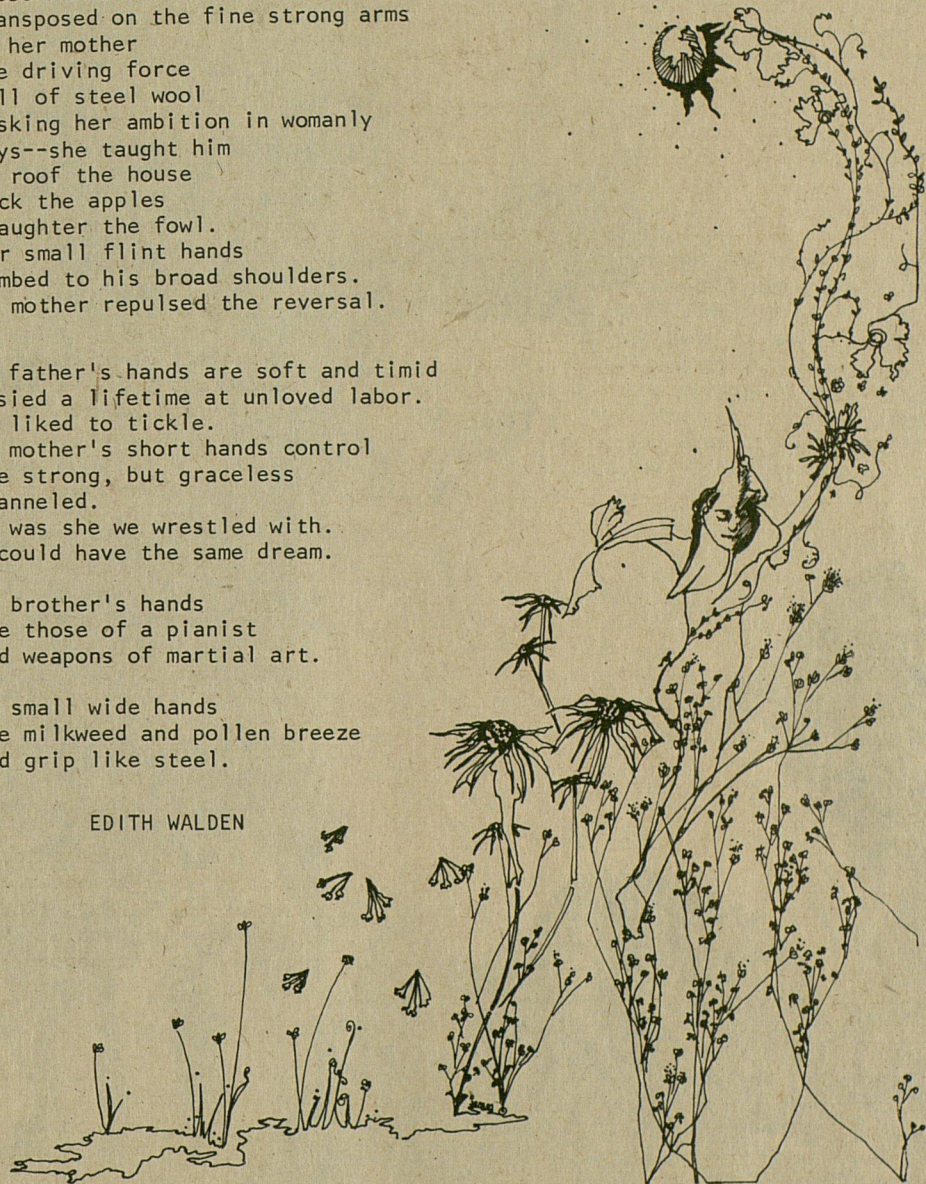
It was my mother's nightmare.  
Wide gentle hands of her father  
the philosopher  
teacher turned farmer,  
a forfeit of devotion  
in one long eeking sigh  
of rented orchards;  
he budgeted his humor  
for his children.  
Those hands  
transposed on the fine strong arms  
of her mother  
the driving force  
will of steel wool  
masking her ambition in womanly  
ways--she taught him  
to roof the house  
pack the apples  
slaughter the fowl.  
Her small flint hands  
limbed to his broad shoulders.  
My mother repulsed the reversal.

My father's hands are soft and timid  
busied a lifetime at unloved labor.  
He liked to tickle.  
My mother's short hands control  
are strong, but graceless  
channeled.  
It was she we wrestled with.  
I could have the same dream.

My brother's hands  
are those of a pianist  
and weapons of martial art.

My small wide hands  
are milkweed and pollen breeze  
and grip like steel.

EDITH WALDEN



JO TENN



MARJORIE MOUNT





# FARM

# NOTES

The experiments of Cleve Backster in 1966 heralded a public interest in the inner life of plants. His experiments indicated that plants respond to stimuli. This was not the first attempt to measure the responses of plants, but it was the first to receive widespread publicity.

For centuries people have known that plants are sentient beings, and have treated them as such. The poet, Goethe, was also convinced that plants have metaphysical life hidden from the casual observer.

Beyond the scientific, there have always been people whose acute sensitivity enabled them to tune in to the needs of growing things. Many people have noticed that plants left alone do not flourish until they are in the company of other plants, which may be a factor in the success of companion planting. Plants have been known to droop dejectedly when familiar animals or other plants are taken away from their environment. And everyone knows that music is an important growth factor for plants. Let the gardener beware, be kind to your plants.

Ruth MacGuire

There is a sure-fire way to get rid of the smell of a skunk. Ordinary beer.

Not only does it not hurt the animal, it is good for their hair.

When Rover is wet with skunk oil and beer he smells somewhat like a walking brewery with smelly undertones, but as soon as he dries, no skunk or beer smell.

I generally use about a six pack, but then, I work for a beer distributor. Usually three cans should suffice. I have even shaken the cans and sprayed them like aerosol cans in the general direction of wafting perfumes.

And don't say "What a waste of good brew." If you have ever almost lost your breath from the odor of a skunk, you will agree it's one of the best uses for beer.

Mrs. R.A. Roth

I have five goats. They don't get much alfalfa because we have a legume here known as haole koa (*Leucaena leucocephala*) that has a phenomenal growth rate and a protein content of 30%. It is a weed throughout the lowlands of Hawaii so it is readily available. It is a small tree.

Not only do we use it as goat fodder but shredded, it is a good soil amendment, being high in nitrogen and phosphorus. It is not a good feed for nonruminants, however, because its high mimosine content is harmful to them.

I have never been certain just how to work out a grain feeding program to balance this fodder crop. The goats also receive smaller amounts of banana leaves, sweet potato vines, and another legume *Muceena gigantea*.

My information concerning haole koa came from the Hawaii Agricultural Experiment Station, College of Tropical Agriculture, University of Hawaii, Honolulu 96822.

Robin Fenenga

Here's an 1890's recipe for tomato wine:

"Take ripe fresh tomatoes, mash very fine, strain through a fine sieve, sweeten with good sugar to suit the taste, set away in an earthen or glass vessel nearly full, cover tight with exception of a small hole for the refuse to work out of during its fermentation. When it is done fermenting it will become pure and clear. Then bottle and cork tight. A little salt improves its flavor; age improves it too".

Having read various articles on killing chickens, I've failed miserably. I suspect I'm more of a chicken than they are! I tried the axe but found I had to close my eyes! Needless to say I was far more likely to chop off my foot so back the chicken went to the henhouse.

Next was the sticking through the roof of the mouth. Once again I failed. When eyeball to eyeball with my feathered friend, he outstared me.

But 14 roosters I don't need so here is the method that works for me and obviously the bird!

First I get a round piece of wood from the wood pile. Then I take the chicken and hold it upside down by the feet for a few seconds to make it dozey. Then I put its neck over the log. And with a heavy short piece of pipe I give a hearty whack at the back of the head. I hold it till it stops fluttering and there is one very dead bird.

So far I've killed nine or so and I don't believe either of us suffered.

Helen P. Vardy



# MAGIC IN THE SOIL

PAM BELL



SALLY BAILEY

Fertilizer chemists and plant scientists have analyzed plants to determine what nutrients they need and in what amounts. In these laboratories, plants are grown with their roots placed in water, pure sand or gravel, and they are fed solutions of chemical nutrients. The Department of Agriculture and the fertilizer industries proceed to manufacture these nutrients, and the farmer adds them to the soil in the proper amounts and at the proper time. This is the scientific basis for chemical farming. The resulting food is nothing like what most of us get from our gardens. What makes the difference?

Nitrogen is also present in organic matter, with manure being the richest, then compost, then young green growth. This nitrogen is as essential to soil life as protein is to human life. As the nitrogen increases, life in the soil increases. These organisms trap and store nitrogen in their bodies. As the organic matter decays, the nitrogen supply decreases and organisms die for lack of food. The dying organisms become organic matter (once alive) very rich in nitrogen. This nitrogen is put into solution through the action of the still living organisms. Thus the nitrogen level is maintained throughout the growing season.

The organic matter which has broken down and been depleted of its nutrients becomes humus. Humus essentially is well-rotted organic matter. Its original composition is no longer recognizable to the eye. The nutrients remaining in the humus are released very slowly. The function of humus in the soil is one of texture improvement rather than nutrient supply. Humus increases oxygen content, moisture retention and improves drainage, creating optimum conditions for soil micro-organisms.

The breakdown of organic matter by soil-fungi and bacteria which results in the solution of dissolved nutrients or plant food is not the only beneficial function of a living soil. We know that soil fungi form microscopic white threadlike structures called mycelium. Microscopic examination of the roots of 80% of our crops in a healthy condition reveals a symbiotic relationship between the mycelium of these fungi and the plant roots themselves. The mycelium are seen actually growing within or on the root itself. These fungi are present in compost and manure and in soils rich in organic matter and humus. When this fungi is added to the soil of an unhealthy crop which is known to be one which forms this relationship with fungi, the result is increased growth and greatly increased resistance to pests and disease. While the exact mechanism whereby these fungi benefit the plant is not fully understood, it is obvious that the plant does benefit.

All fungi are not vegetarians. A predacious meat-eating class of fungi which includes those from which we obtain penicillin, Roquefort cheese and athlete's foot, also includes more than fifty species found in the soil which capture nematodes. Nematodes or eelworms are small roundworms which attack and feed off the roots of nearly all agricultural crops and are one of the most serious and prevalent causes of low agricultural productivity. These fungi are present in manure and compost and soils rich in organic matter. When an eelworm is nearby, the threadlike mycelium of these fungi form rings or branches which are sticky and which catch eelworms much like flypaper catches flies.

If we look beyond the laboratory where sheltered plants are grown in bottles and fed chemical formulas--if we look to the fields where plants grow in soil and are exposed to variations in temperature, rainfall, insects and diseases, we find that the difference is organic matter.



Organic matter is anything that was once alive or came from something once alive. This includes plants, parts of plants, animals, parts of animals and manure. Chemically fertilized soils contain little organic matter. Crops will not grow on these soils without the addition of artificial fertilizers and the protection of pesticides. Crops growing in fertile soils rich in organic matter find plenty of nutrients for healthy growth. The organic farmer who was once a chemical farmer can see the difference most clearly. Perhaps the most impressive change in her/his crops is their greatly increased resistance to pests and disease.

The chemical versus organic controversy is losing momentum as the increasing cost of chemical fertilizers and sprays and the decreasing supply of energy necessary for their production makes organic fertilizers and natural disease-and-pest-resistance more and more financially feasible. The conditions which once made chemical farming attractive no longer exist. Energy is neither cheap nor plentiful. Yields have dropped. Pesticides have become an environmental threat. In addition, more has been learned about the function of organic fertilizers in the soil.

Soil fungi and bacteria which break down organic matter in the soil increase in number as the organic matter increases in amount. It is often simply stated that the nutrients resulting from this process are then available to the plants. While this is true, it is not the whole picture. Laboratory analysis reveals that there are not sufficient nutrients present in a given amount of organic matter or compost to explain the exceptional health of the crops thus grown. We must, therefore, look further into the organic soil. Here we find several life processes going on simultaneously and in harmony with each other and resulting in an increase in available plant nutrients.

The life process of soil micro-organisms which break down organic matter results in the production of carbonic acid. This mild acid is powerful enough to dissolve minerals which are naturally present in the soil. These minerals include all those necessary for plant growth (phosphorus, potassium and trace elements). Two percent of all organic matter is also mineral.

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The gardener who considers using just a "little bit" of 5-10-10 or pesticide or fungicide should be aware of the following:

1. Fungicides kill fungi--those in the soil as well as those on the plants.
2. Pesticides kill beneficial insects as well as those which are troublesome. While the eelworm is considered a pest, if it is eliminated by a pesticide, the fungi which feed on eelworms will also be eliminated.
3. Artificial fertilizers create conditions in the soil which are toxic to fungi.
4. Chemical nitrogen increases the speed of the breakdown of nutritious organic matter, resulting in the rapid creation of the less nutritious humus.

I have described only a few of the natural processes which occur in every inch of soil in meadow and forest throughout the world. The complexity of the system whereby nature provides fertility for her garden is apparent only through the lens of the microscope. To the naked eye of the hard working gardener, the lush green carpets and cool green canopies so much enjoyed by hot summer feet and high summer spirits seem to have appeared by magic. Every organic gardener, however, can rest assured that this same "magic" is happening in every organic garden throughout the world. ♀





ANN BANKS

# FOOD & ENERGY

LUCILLE SADWITH

If we are to consider the conservation of energy seriously, then it is absolutely necessary to look at areas of our national and industrial life beyond direct consumption of fuel oil and gasoline. It means reordering priorities on what commodities we produce, how we produce them, where we produce them--it means untangling the threads that connect energy with all aspects of our national and personal lives.

The largest industry in the country is the production and distribution of food. We are only 6% of the world's population, consuming 50% of the world's annual production of fossil fuels--20% of which is used for our food system. This means we now use 29,000 Kcal.<sup>1</sup> of energy per capita per day to maintain this highly industrialized food system, while a partially industrialized country like India uses only 6,000 Kcal. per capita per day for all of its energy needs.

If we used all of our petroleum in all industries as wastefully as does the food system, the known world's reserves would hardly last more than 15 years. Food is energy, and food production requires energy inputs, but what kinds of energy, how much and for what purposes needs to be re-evaluated. The food/energy ratio should be the next step in reordering our national energy priorities and conservation programs.

From the dawn of history up to modern times, people have always been locked into a food system dependent solely upon the energy inputs of human and animal labor. This energy ratio

maintained a balance and harmony in the environment which included a very low level of population density, so that for all of human history there were fewer people on the earth at any given time than there are today in New York City. It also means that the history of humanity was also the history of hunger, famine, disease and wars. In spite of today's abundant food production in the western industrialized world, two-thirds of humanity still suffers every day from some form of hunger, malnutrition or starvation. In fact, there are more hungry people on the earth today than there have ever been before.

The major events that have contributed to this phenomenal rise in food productivity were: The European settlement of North America; the industrial revolution with the invention of the combustion engine so that human and animal labor was replaced by farm machinery fueled with cheap energy; development of efficient transportation systems; freedom of trade and commerce in a market economy; a climate that remained relatively warm and sufficiently rainy for the past 200 years, the last 40 being the peak years of favorable conditions for agriculture.

These factors, plus the impetus of the second world war with the ensuing era of prosperity and rising standards of living, led to our highly urbanized society, our energy-intensive agriculture, our cheap food policies, unprecedented demands for luxury foods, supermarkets, food corporations, agribusiness, convenience foods, fabricated foods--the whole colossal



structure that is held together by one kingpin: abundant cheap energy.

Today, these factors are rapidly changing or are no longer functional. The era of cheap energy is over. The second most important factor, the climate, is growing colder in the north and drier in the west. Predictions indicate that this trend is likely to continue for at least another decade. Domestic and world food markets are no longer competitive or free, but are largely controlled by vertical corporations, multi-national corporations, international credit banking, national political considerations and land cartels. All the world's large tracts of arable land are now in production, and there are no new lands to discover and bring into cultivation. We have virtually abandoned our railroad system, pouring billions of dollars and massive resources into highways and trucking, the most energy-intensive transportation possible.

The challenge then is to maintain high productivity in agriculture in order to provide a varied and adequate food supply accessible to all economic levels of our society at fair prices, but at the same time utilize much less energy far more efficiently for necessary products.

There are many sectors in the food system that are using enormous quantities of energy wastefully and unnecessarily, but the three that are the most terrible are the production of beef, the processing of all foods and the tremendous amount of long distance transportation of raw materials and finished products.

Transportation accounts for the second largest amount of energy consumption in our food system. Processing is first. The production of a can of corn worth 270 Kcal. of energy takes 200 Kcal. for the farming, 1,000 Kcal. for the processing and 600 Kcal. for the transportation. This is an energy inversion of seven times the energy input as is realized in food energy.

Beef production is dependent on corn and soybean production, although it is possible to raise good beef on forage crops exclusively. These crops utilize very heavy inputs of chemical fertilizers, the single largest energy input in modern corn production. It takes 112# of nitrogen, 31# of phosphorus and 60# of potassium fertilizers for one acre of corn, or almost one million Kcal. of energy. Since it takes 20# of grain to produce one pound of edible beef, and Americans consume about 250 pounds of beef a year, that works out to 1 1/2 million Kcal. or 40 gallons of oil just for the fertilizer to supply one American with a yearly supply of beef. The American population is, therefore, consuming something like 8 billion gallons of oil yearly in the form of beef. That same yearly amount of fertilizer is produced in the form of manure by either one dairy cow, nine hogs or eighty-four chickens.

From these examples it is not difficult to see that this highly technological food system is enormously energy-intensive. It leaves out the

tremendously important factor of the colossal amounts of nutrient losses throughout the whole system. Account must also be taken of the enormous dollar costs in increased food prices that this system requires, and that the public has to pay, because there is no alternative system available from which they can obtain their food.

It is essential to look at this system as a whole, and carefully analyze every aspect of it in terms of energy usage, from the cultivation of seeds to family cooking methods. Along with this analysis we recommend nine programs to help start de-escalating energy use in the food system.

1. A crash educational program that would help the public learn about the connections between energy and food.
2. Federal and state programs for the recycling of animal manures, organic wastes and city sewage to go back into nourishing the soil.
3. Federal guidelines for regional and state programs for increased agricultural diversification and regional self-sufficiency.
4. Programs to help keep family farms in business and to encourage the creation of new small farms utilizing intermediate technologies.
5. Programs to promote suburban and urban food production and direct local produce marketing.
6. Regional and state food storage facilities.
7. Implementation of programs for extended integrated pest management systems.
8. The phasing out of junk foods in schools and institutions receiving federal funds or surplus foods, and the elimination of foods so devoid of nutrients that they can only be regarded as giant consumers of our energy resources.
9. Greater availability of natural unprocessed foods, a decrease in the use of beef and an increase in the use of vegetable protein.

These programs and recommendations, in effect, would be creating an alternative backup food system that would give the public genuine choices, and would be in operation in the event of a breakdown in the present corporate system. It means realizing that food is not a raw material for the manufacture of products, but is an indispensable resource intrinsically connected to fuel energy for producing human energy and must be produced, distributed and consumed as efficiently, justly and economically as humanly possible. ♀

<sup>1</sup>Kcal: the amount of heat required to raise the temperature of one kilogram of water one degree centigrade.



# COOKING WITH WOOD

JOYCE ALLEN

Cooking with wood is different, but not nearly as different as I once thought it would be. It takes about as much longer as it takes to get the fire going and the metal hot. Once that's happened and you've got the hang of it, timing is about the same as it always was. You do things in a different order: Start the fire, *then* peel the potatoes.

My last article had to do with use of the stove in general. Now I'll get to a few of the specifics I've learned by doing a lot of things wrong.

## Pots and Pans

Any pans you have will do, but the most satisfactory ones have bottoms wide enough to cover a stove eye completely. This means the metal plate, or lid, can be taken off and the pan can get the direct flame when you need the most heat.

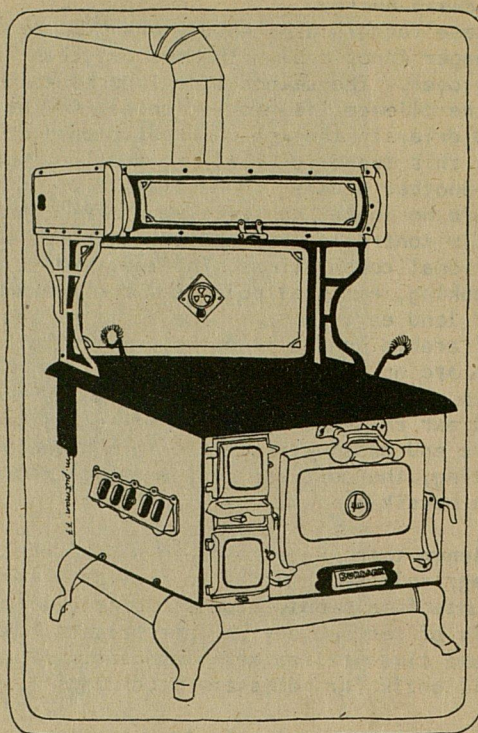
One of the most useful containers I have is a tapered, speckled-enamel coffeepot--the kind made for campfires. The bottom is wide and the shape seems to encourage water to boil fast.

Iron frying pans are good, too. Nice and steady, easy to clean out, and they look right on the stove. Besides, they are supposed to be black. This is the color all the pan bottoms will be pretty soon unless you'd rather scour pans than do anything else with your life. I prefer to stop at the point of reasonable hygiene.

## Surface Cooking

Frying can be started as soon as the fire is burning well. You don't have to wait for the stove to heat through. Take the lid off one of the eyes over the firebox and put the pan there. I start this way when I'm browning something like onions and celery or meat that will be simmered later; it saves a little time. By the time I'm ready to add the liquid the stove is usually ready too.

The stove does need to heat through before anything will come to a boil. I start boiling over the firebox too. Later I usually put the lid back on and later still, move the pot.



MAGGIE PUTNAM

It's important to check things pretty often. Wood will have to go in from time to time. Pans will need to be moved to cooler or warmer spots. You soon catch on to the progression from hottest to coolest places on the stove you can use. Sometime when a good fire is burning, take off all the lids and study the ways the flames are pulled with baffles and grill adjusted various ways. On my stove the hottest spot (after the top of the firebox) is the front eye next to the fire. Then the temperature moves from hotter to cooler across the front and back in reverse order across the back. The coolest eye is the back one next to the fire. Ever hear of dinner keeping warm on the back of the stove?

Exact temperatures, on stove top or in the oven, don't matter so much. What matters is the general heat level. Keep it as steady as you can, but don't worry about some fluctuations. People cooked on open fires for millenia before the thermostat was invented.

## Oven

It takes more time to bring the oven to cooking temperature than the surface, but once it's ready it holds the heat with little fussing. The tendency is more toward too hot than too cool; you need to pay attention. I shut the oven baffle a little bit before the temperature is where I want it, to pull the hot air down and around the oven. The side grill is nearly closed, or closed all the way unless something is cooking on the surface at the same time.



Everything cooks in a wood stove at a lower temperature than it would in any other kind. Meat; bread; once in the early days I baked an inedible cinder of a pie in something like fifteen minutes by keeping the thermometer at the 400° the recipe called for. Very few things (I haven't found any so far) require a temperature over 350°. Bread does best around 300° or so.

Oven foods need to be moved around during cooking. The side nearest the firebox may be incinerating while the rest is still pale. Turn pans; move them from the oven floor to the shelf and back again.

Bread comes out with a softer bottom crust than you may be used to. This doesn't mean it isn't done. Give it the amount of time your recipe suggests, then turn a loaf out of its pan to see if the bottom is a light brown and if there's a hollow sound when you tap it. If so, enjoy. If not, put it back in the oven a little longer and then try again.

The way to raise the oven temperature is obvious: add wood; add air. Lowering it is a bit harder. You might need to leave the oven door open a minute or two if shutting the grill doesn't help.

I find I'm fixing hot bread with dinner more often than I used to in the pre-wood-stove days. The oven is getting hot down there whether anything is in it or not, and I have a sort of Puritan waste-not-want-not compulsion to stick in a pan of muffins or rolls. This may be a hazard if you share the tendency and don't want to eat that much.

Bread can't, of course, share a small oven with a turkey, but rolls can be baked in about the amount of time it takes for the turkey to cool enough for carving. Just have them ready to shove on in when the bird comes out.

#### Canning

This is just as possible with a wood stove as with any other kind, and by using the same methods. Until recently I restricted myself to food like tomatoes that could be canned in a boiling water bath. It worked very well indeed. You do have to live with a lot of heat while it's going on. Getting a canning kettleful of water to boil takes a long time. The results, though, can be terribly rewarding to us latter-day Puritans.

Not long ago I mentioned in print that I didn't know whether a pressure canner could be used on a wood stove. The result was a deluge of letters from people all over the contiguous United States and Alaska. Some had cooked with wood for twenty or thirty years. They had canned everything from beans to moose (Patricia Ford, of Copper Center, Alaska, who told me about the moose, also makes cream puffs in a wood stove). All of them assured me that my misgivings about pressure canners were groundless. All that is necessary is to follow the basic wood stove rules: pay close attention and move the canner around. It's no harder to maintain the right pressure than it

is to keep soup boiling, and it's the same process.

I've used a pressure canner now; at least enough to lose my stage fright. The people who wrote me are right. Get a good book on safe canning if you don't already have one, and do what it says. The Department of Agriculture puts out some fine publications in its Home and Garden Bulletin series. These run about thirty-five to forty-five cents each, and you can get your congressperson to earn her/his keep by sending you a listing.

Pressure canning has a number of advantages for me. It opens up the field--I'm able to can things now besides tomatoes and pickles. Then the matter of heat does count in North Carolina in August. The fire doesn't have to be going nearly as long to boil the couple of inches of water the pressure canner takes as it does for the gallons required by the kettle. Also, the canner's less gluttonous water demand solves another, more individual, problem I have. Our well goes down more than three hundred feet through impermeable Carolina slate, and doesn't bring up with any certainty the quantities of water I've needed in canning season. Last year I had to stop canning in the middle of August for lack of this most basic resource.

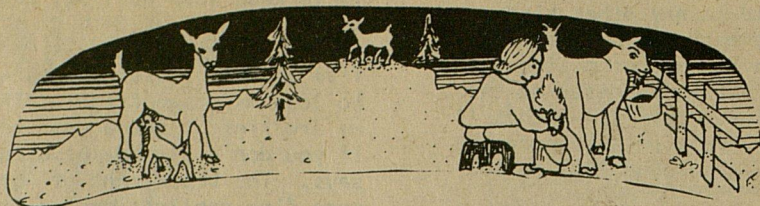
#### Summer

The wood stove may be cozy in January, but summer is another matter. Historically the heat problem has been solved in various ways. A second stove on the back porch. A canning kitchen in the basement. A summer kitchen in a separate building. Peanut butter. Except for the last, these solutions keep the house cool but do little for the cook until after the job is done. You think of quick meals; you think of uncooked meals. You group baking jobs in the evening or early morning. And it does help if there's a relatively cool refuge after the cooking is finished.

A lot of people whose mothers or grandmothers used wood stoves have told me no food has tasted as good since. Well, probably anything your mother cooked when you were five tasted better than its equivalent in any other time or place. Mine served a lettuce-and-mayonnaise-and-peanut-butter-on-Sunbeam that lights my memory in defiance of the stomach-churning adult experience. I'm not sure there isn't something to the wood stove memories, though. I couldn't prove it, but there does seem to be an unusually tender, savory quality to the food. I don't know why. It might be something about indirect heat and gentle cooking. It might be imaginary. It might be, as somebody once suggested when we first got the stove, that by eleven o'clock at night when dinner's finally ready, anything would taste great.

I have a suspicion that the quality may be at least partly due to the need for paying attention. The watched pot does boil, and the watching leads to understanding and respect. ♀



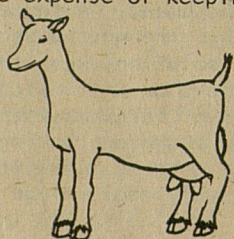


# breeding Your Goat

## when to breed

Goats have a seasonal breeding period. They "come into heat" from late August to mid-March. The bucks stay in heat all season, while the does "come in" or cycle every 18-21 days.

You are the best judge of when to breed your doe. People with more than one doe attempt to stagger the breeding so as not to run out of milk. Kids can be bred as early as eight months if you feel they're mature enough to handle the pregnancy. Don't forget they have the five months of gestation to grow in, and if they become pregnant, can save you the expense of keeping a dry doe for another year.



For most people, the hardest part of raising goats is telling when the does come in heat. However, with daily attention, you may be able to recognize external changes. Watch for any of these signs to indicate a heat:

1. Continuous twitching of the tail.
2. Redness and swelling of the vulva.
3. A mucous discharge.
4. Bleating.
5. Loss of appetite.
6. Lower milk production.
7. Mounting other goats or allowing herself to be mounted.

The heat period lasts 2-3 days early in the season, and shortens to just one day as the season progresses. If you're having trouble observing your doe in heat, it may prove wise to board her with a buck, and if this isn't successful, a veterinarian should be consulted. BEWARE the quickness of some veterinarians to use hormones without a prior vaginal examination.

## choosing a buck

The clearest consideration in choosing the right buck for your doe should be breeding for a stronger, higher-producing offspring. Your chances of achieving this result depend a great deal on your ability to recognize weaknesses in your doe. General points to look for include:

Milk production. A doe should milk a gallon a day (8#) to pay her way (first fresheners should be given a second year to prove themselves.)

Udder attachment. Should be high and tight both front and rear to support the weight of the milk.

Body strength. This is typified by well-sprung ribs, a deep middle (barrel), good length of body with a broad and slightly sloped rump, and lean, straight legs well set under the body.

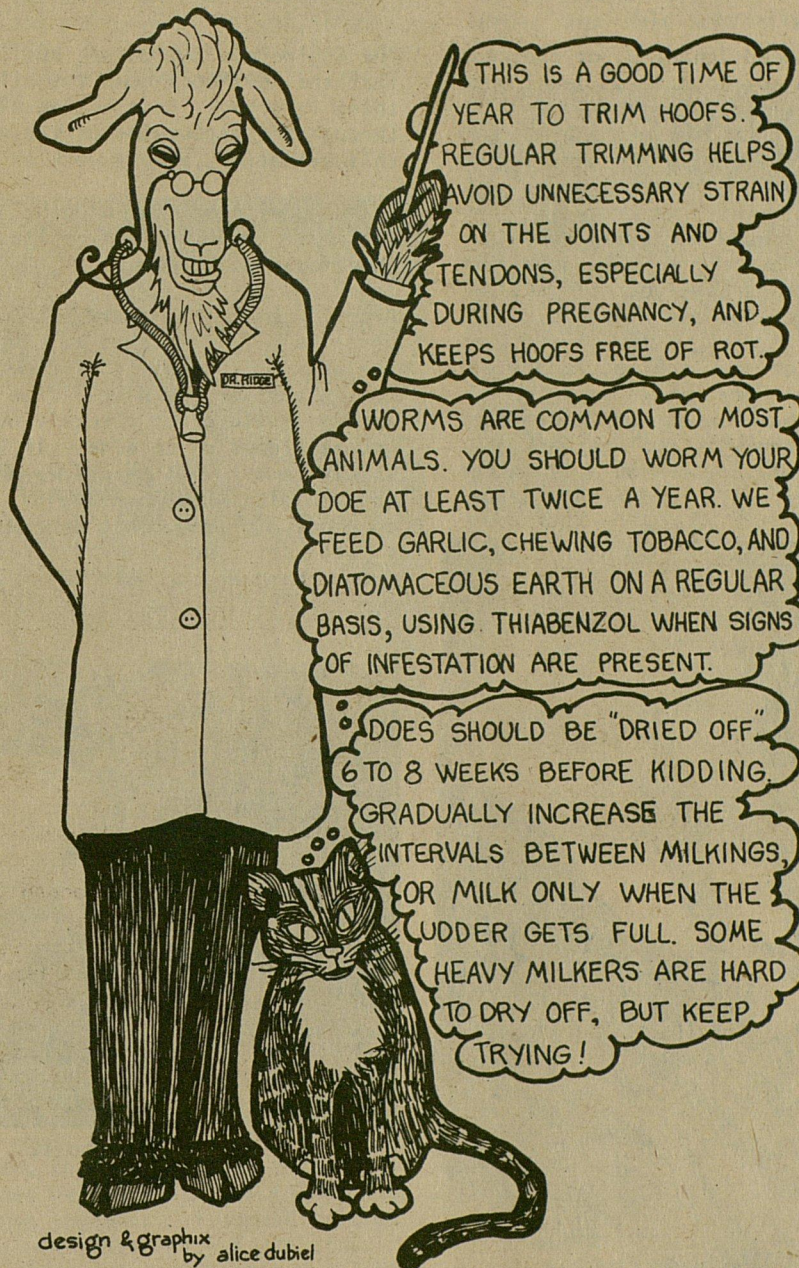
Simply, a registered doe doesn't mean a better doe, only that she is guaranteed to be purebred and that you can trace her lineage accurately. Registered does and their subsequent offspring generally sell for more money, a good reason to continue those lines. However, much can be said for the strengths of first generation crossbreeds as well as the excellent quality of grade animals in an area where goat breeders are abundant.

Most breeders only keep bucks out of proven does or potentially excellent milkers.

A buck is only "proven" when you can see the results of his service, i.e., by seeing the production records of his offspring and observing the physical traits that he throws in relation to the dam he serves. What a buck looks like is not necessarily what he will throw.

Be careful not to downbreed your doe. Bucks can offer different things to each doe. Experienced breeders can be helpful in suggesting and assessing strengths and weaknesses. Don't be afraid to ask for help, and don't go just for the closest buck, though the temptation is great.





design & graphix  
by alice dubiel

THIS IS A GOOD TIME OF  
YEAR TO TRIM HOOFS.  
REGULAR TRIMMING HELPS  
AVOID UNNECESSARY STRAIN  
ON THE JOINTS AND  
TENDONS, ESPECIALLY  
DURING PREGNANCY, AND  
KEEPS HOOFS FREE OF ROT.

WORMS ARE COMMON TO MOST  
ANIMALS. YOU SHOULD WORM YOUR  
DOE AT LEAST TWICE A YEAR. WE  
FEED GARLIC, CHEWING TOBACCO, AND  
DIATOMACEOUS EARTH ON A REGULAR  
BASIS, USING THIABENZOL WHEN SIGNS  
OF INFESTATION ARE PRESENT.

DOES SHOULD BE "DRIED OFF"  
6 TO 8 WEEKS BEFORE KIDDING.  
GRADUALLY INCREASE THE  
INTERVALS BETWEEN MILKINGS,  
OR MILK ONLY WHEN THE  
UDDER GETS FULL. SOME  
HEAVY MILKERS ARE HARD  
TO DRY OFF, BUT KEEP  
TRYING!



# FIRST AID FOR AILING SPARK PLUGS

JULIANNE KUHL

Spark plugs should be tuned (changed, or checked and cleaned) as a matter of routine at least once a year in the fall. However, if you are particularly ambitious (or fussy) and have the time, you can tune up your engines every spring and fall to get maximum performance.

Changing spark plugs is messy but quite easy. Complications can arise only if you are grossly careless, so take heart and save yourself a tidy sum by doing spark plugs yourself. Here's how...

After opening the hood of your engine, locate all the spark plugs. *Please note:* It is best to do one plug at a time so that you do not inadvertently mix up the wires. Each wire **MUST** go back to the exact plug it came off of, or you will change the firing order of your engine and create havoc.

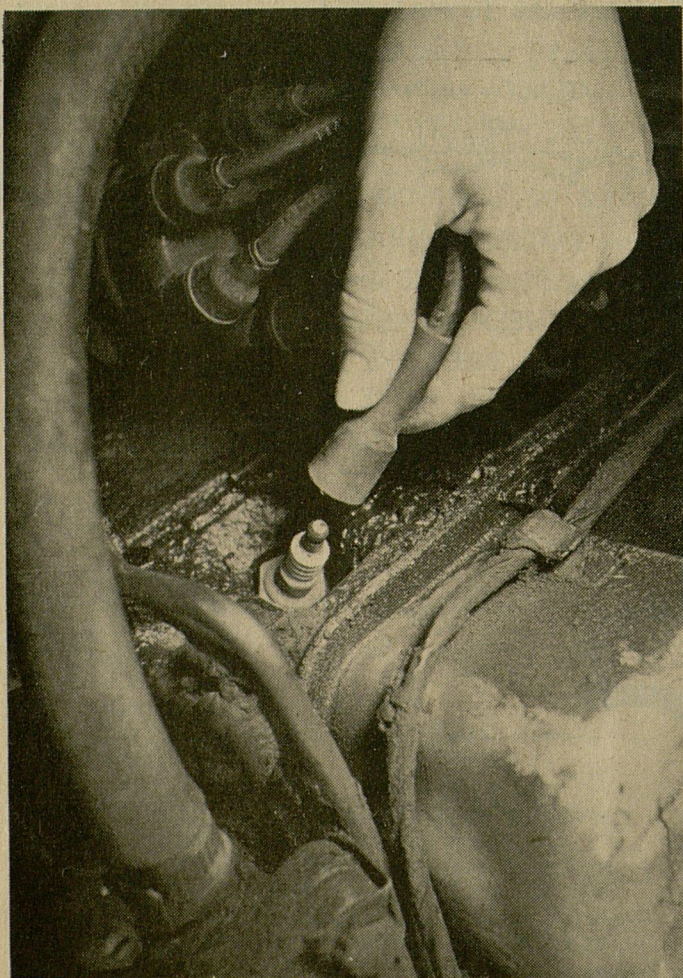


Photo #1

The engine won't blow up, but it will run so rough that the neighbors down the hill will know something is wrong. Your engine also might backfire through the carburetor or the exhaust. To avoid this situation, simply work on one plug at a time.

Pull the wire off the plug by the boot (See Photo 1). Pulling on the wire itself could result in damage to the wires.

After exposing the spark plug, put a socket wrench onto the plug in such a way that when you turn the wrench it doesn't "bend over" and snap the porcelain part of the plug. (See Photo 2) The wrench should pivot directly over the plug, not wobble from side to side. If you do break a plug, simply remove all the pieces and resume unscrewing the plug with your wrench. It will still come out. If you don't have a socket wrench set, you can buy a very inexpensive spark plug wrench from a hardware or auto parts store.

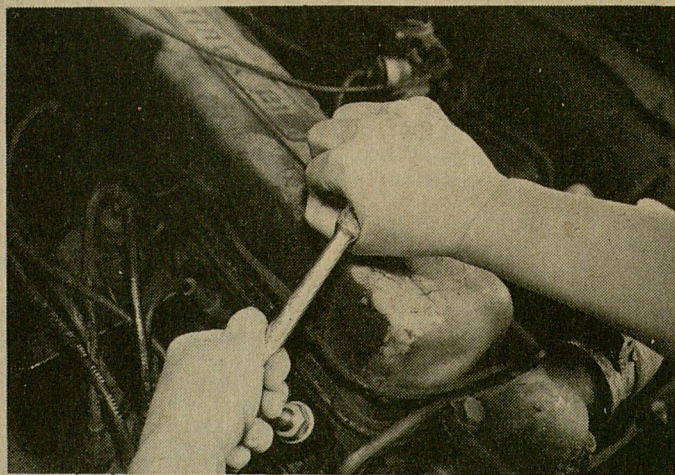


Photo #2

Look at each spark plug carefully. Take note if the plug is wet with gasoline or oil. (See Photo 3--plug on far right) If it is, it means that possibly your engine has a bad wire. (There isn't enough electricity to heat the plug sufficiently to burn up all the fuel.) Or, if one or two plugs are wet and the rest are black and sooty--a remote possibility--your engine is running too rich. You need to change your carburetor.

JOSEPH KUHL



If you should find yourself with only one bad spark plug (oil/gas residue) and for some reason you don't want to fix it, you can buy an adapter which screws over your spark plug. (See Photo 5). It creates a larger chamber for combustion without letting the electrodes become fouled up. It is not a cure for the problem but simply a stop-gap measure.

If the plug has a tan color on the electrodes (the hook and the pin parts of the plug), then your engine is running well. (See Photo 3--center plug) Simply clean up the plug, regap it, and put it back into the engine.

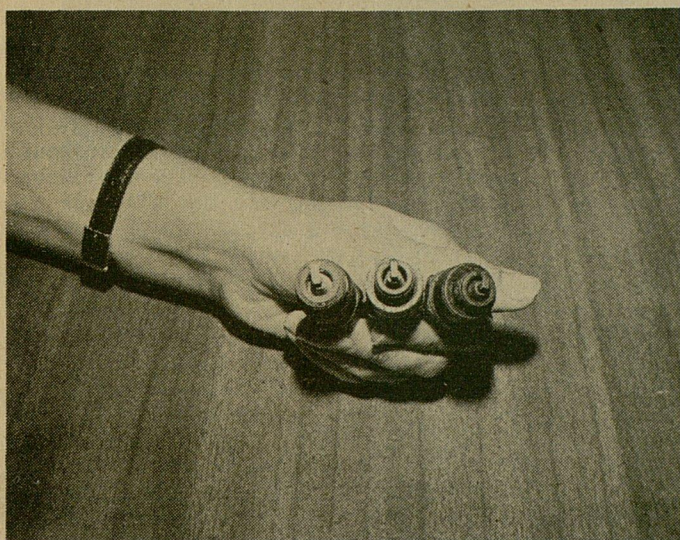


Photo #3

If the plug has deposits on it, then it needs a very thorough cleaning or replacement. (See Photo 3--plug on far left). Blistered, eroded, or pitted plugs may indicate that the wrong type of plug has been in the engine. Double check that aspect.

If you put new plugs in, be sure to gap them first. (That is, check the amount of space between the hook and the pin parts of the plug.) Electrodes could get banged around in the package and become too close together. I should mention that we rarely buy new plugs for our vehicles. It seems that the older ones run better and last longer between cleanings than the new plugs. Of course this is cheaper too.

Cleaning of the plugs can be accomplished by either scraping with a knife, or using sandpaper or emery paper. But the very best way is to use a spark plug cleaner. This is a special piece of equipment that hooks up to an air compressor. There are several different kinds, ranging in cost from \$9 to \$100, depending on how substantial

a piece of equipment you need. We have the simplest unit (See Photo 4) which cost us about \$7 a few years ago. It is adequate for maintaining our three vehicles' plugs. If you buy a spark plug cleaner, you also need a packet of special grinding compound (called "sand") that goes into the bag of the cleaner. It costs about \$1/packet and is superfine gritty stuff, resembling the fine dust from a vacuum cleaner bag. Don't try to substitute any kind of sand in the cleaner other than this specially prepared compound.

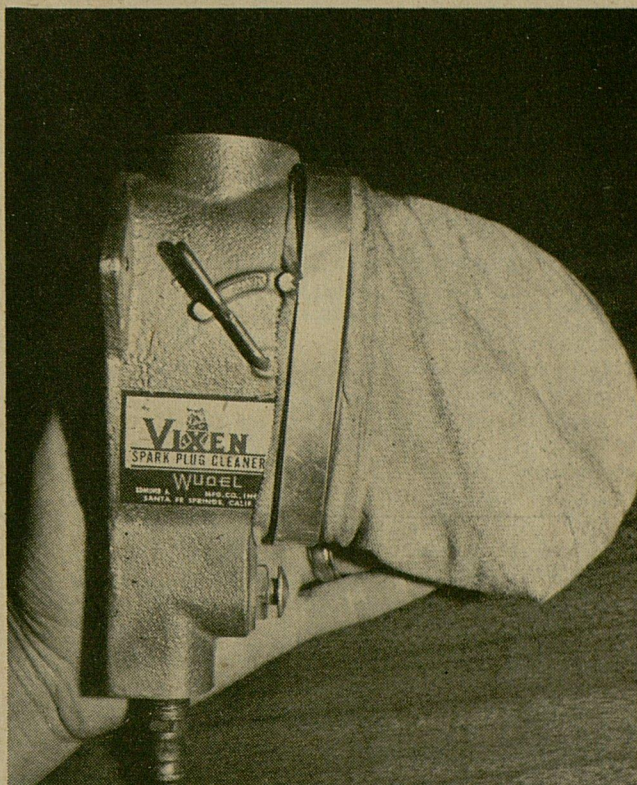


Photo #4

It may sound expensive to buy a plug cleaner, but this unit should outlast its owner. When compared to the ever-rising cost of having a garage do your tune-ups, you will find that the cost of the cleaner can be offset in savings with the first tune-up you do yourself, if you buy the cheapest model.

And don't forget, buying equipment now is cheaper than waiting for a year or two because of the galloping rate of inflation. Also, the quality of many manufactured products often is better today than it will be tomorrow. But the most important advantage of buying equipment is that it's the very best hedge against inflation. The value of equipment (new purchase price) will increase faster than many kinds of investments (savings accounts, for example) even taking into consideration the matter of depreciation. Thus, you can lose money by putting it in the bank at 7% a year rather than by buying equipment that rises 15%-20% a year....or more.



If you have bought a spark plug cleaner, hook it up to your air compressor. Any unit that builds around 100 pounds of air pressure or more will do fine. Put the sand into the cleaner, pop in the plug, and press the button to get the air into your cleaner. The fine particles of sand will scour the inside of your spark plug in a frenzy of activity, loosening all the corrosion. Shake the plug while you clean it so that the sand reaches every crevice in the plug. About 5-10 seconds of sand-blasting should do the job thoroughly.

Some cleaners have a valve to close off the sand (see photo) which gives you a "rinse" cycle, as it were, of only air to really blow the plug clean.

After shutting off the unit and removing the plug, you are ready to gap the plug. Use any kind of spark plug gauge (See Photo 5) and set the gap as closely as you can to the specifications called for. The tolerance isn't as demanding for spark plugs as for the points in a distributor (see the last issue of *Country Women*) but you should feel some friction as you insert the gauge between the electrodes of the plug. You can find out what the gap setting should be by referring to your owner's manual, a good auto repair book, or a friendly mechanic. We use either *Glenn's* or *Chilton's* auto repair manuals for our cars and *Motor's* manual for our trucks. After the gap has been set, replace the plug by screwing it back into the engine block. Tighten it only reasonably snug. Don't use "all your beef" to tighten it, or it will swell in the hot engine and be much harder to remove later even though the engine will have cooled.

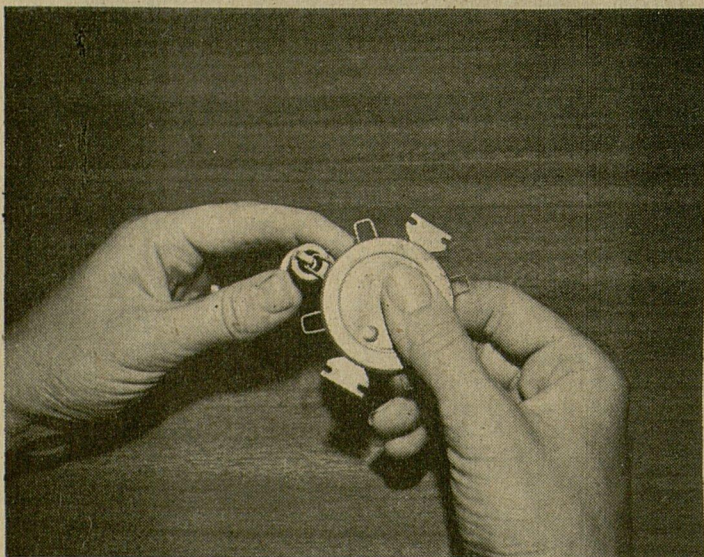


Photo #5

Finally, replace the wire from the distributor to the plug. Finis!

The thing most to be avoided is to put the wrong wire on a plug. It is rather easy to do IF you take all the wires off and flip them around. This is why it's best to do each plug separately. (Some dizzy hot rodders deliberately mix the firing order to get some really high-powered backfiring. But that stuff is for experimenters only.)

Now let's mention an important related issue: spark plug wires. Even though changing wires is not part of routine engine maintenance, we will discuss it here because it directly involves engine performance *and* you can do it yourself.

There are several things that may happen to your engine to alert you to the possibility that your wiring is going bad. After your car or truck sits in damp weather for a day or so, it may be difficult to start, or it may fail to start altogether. Or, it may idle very rough even after a tune-up with new parts. Of course, rough idling can be due to other factors as well, such as a worn cam shaft, "improved" engine design, etc. But check your wiring before spending a bundle on replacing major engine parts.

Sometimes you can tell that wires need replacing just by looking at them. They may look "tired." Or they may have fine cracks in them which you can't see. These cracks allow oil or humidity to get into the wires. If your wires are deteriorating, electricity is unable to travel from the distributor to the plugs; instead, the current goes to ground and there isn't enough "juice" to ignite the gasoline/air mixture inside the engine and get things going.

You may want to have the wires checked by a garage which has a computer diagnosis system; they can test for porous carbon wiring. But in any event, if you suspect bad wiring it won't cost that much to replace all the wires. You will need to do so every five years or so anyway.

The cheapest way to replace all the wiring is to buy a roll of new wire from an auto supply house and cut the wires to size yourself. Remove one wire from the engine, cut a new piece from the roll making sure it is the same length as the old wire, and install the new wire at once. Then take a second old wire, cut new wire the same length as the old, and install it. Each wire may be a different length. After you have changed all the wiring, you can stand back and admire your work, knowing that you've saved yourself anywhere from \$15 to \$30, depending on the cost of living in your area. ♀





RUTH MOUNTAIN GROVE



# WINTER GARDENS

## BINDA

There are at least 20 vegetables that you can grow in the Puget Sound area throughout most of the winter months. In other words, you can have a productive garden twelve months of the year. Depending upon the amount of space, protection, solar radiation and local temperatures in your area, you can grow enough to supply you with all your fresh vegetables at the maximum or keep yourself supplied with green salads at the minimum.

Commercial farmers in this area used to work to extend their growing season because it was profitable. But with the advent of California winter produce, they no longer bothered. Economic and political conditions being what they are today, perhaps the time has come to once more make the effort.

It should be easier this time around. In those thirty-plus years, many new varieties have been developed, "organic" methods are being developed, and we have information from other less mechanized times and cultures (French, Chinese, English) to help us use more gentle, productive methods.

This information is written for people who have had at least one summer garden and have some understanding of how the vegetables discussed below behave in the summer. If you don't have that experience, limit your winter garden to a few of the more hardy varieties mentioned. That way you won't get overwhelmed and lose your love of gardening.

### The Winter Garden Site

South-facing spots are the most favorable for most vegetables, but east and west ones will do.

If the amount of potential radiation (I will use this word instead of "sun" as coastal areas are so often cloudy) is half a day or less, you would be better off to limit the kinds you will grow, but grow more of them. Better to have lots of lettuce and corn salad, than cabbages that didn't make it. This will give you salads and, as you eat them raw, they will be of more value in the winter months.

If you live in the country, you will probably have another problem--lots of space, but no warm microclimate. I think it would help to make a walled winter garden, out of whatever material you can scrounge up. If you have a barn or shed that you can garden on the south side of, then you only need to put up three walls. There is some good information on microclimate manipulation in the Ortho booklet, "Weather-Wise Gardening." Just remember they are trying to push

petrochemical products. Ken Kerns' *Owner-Built Homestead* also has a good chapter on pit greenhouses and materials.

If you have a choice, use a south-facing slope to garden on. This helps in two ways: the drainage is better and you can terrace to improve the garden's microclimate by reflecting radiation and cutting down on wind.

Low spots are poor for winter gardens because they collect cold air.

If your sunniest spot faces onto a busy street, I would not recommend that you make a sidewalk or front yard garden. Lead deposits on vegetation are very high in such places.

### Soil

After radiation, this is your most important concern. A light and fertile soil is necessary for good summer gardening, but many people manage to get off some crops with poor soil. You will probably fail if you have bad soil for your winter crops.

Heavy clay-like soil that doesn't drain will suffocate the plants and be too cold for good growth. If you must work on a flat site, build raised beds and work in as much organic matter as possible. Good compost heaps can be made with all vegetable matter, sprinkled with a bacterial material (such as Fertosan), and covered with black plastic. These will break down in six weeks or so, and leave you with soft, crumbly soil, perfect for winter gardening.

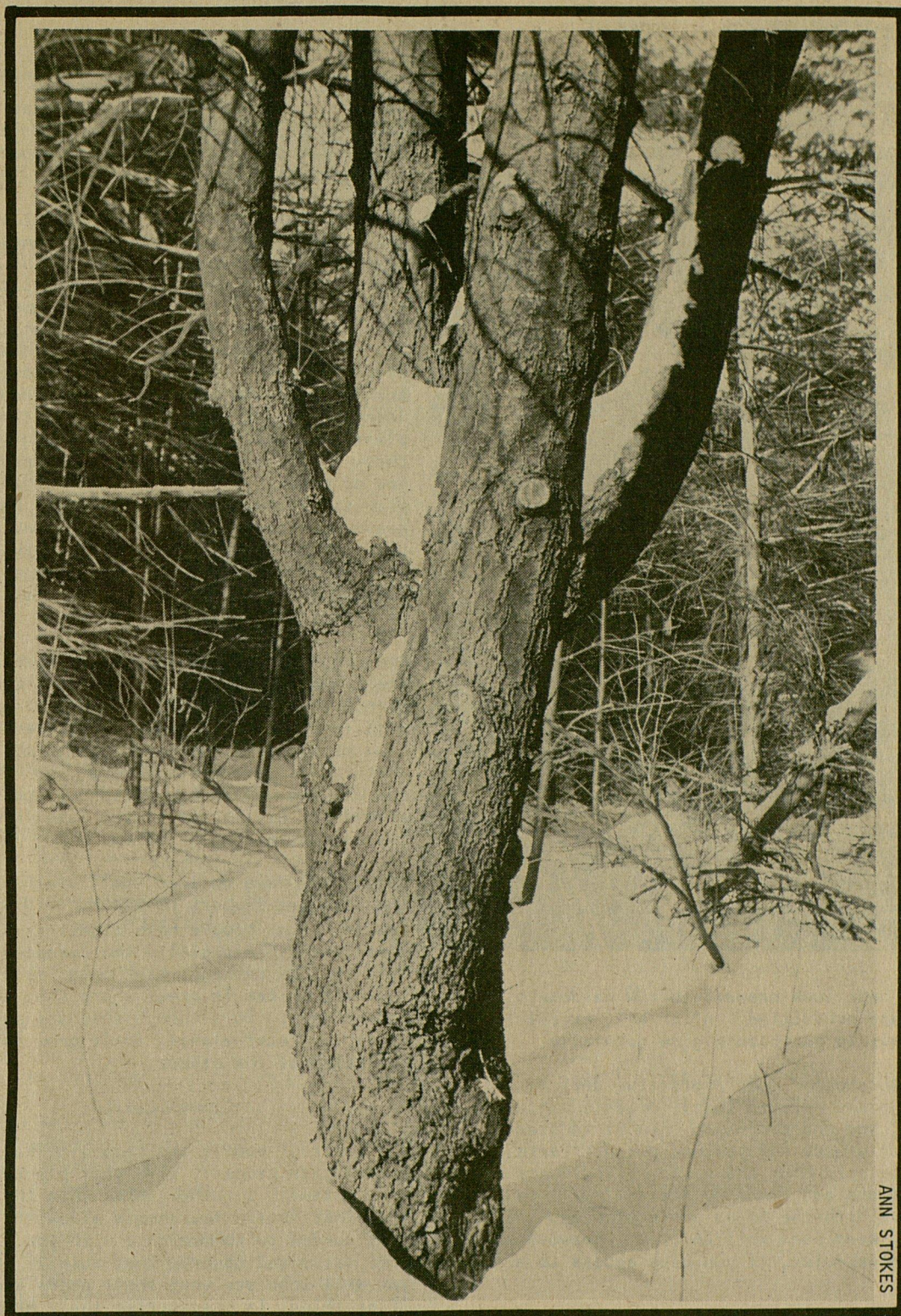
### Timing and Protection

Getting plants to be productive through cold times depends a lot on some sixth sense about when to start them so they are growing vigorously at the right point. And a lot of that sixth sense comes from experience with each variety.

It will be best to start several successions the first year to give you a feel for what happens. Get some markers and put the variety and planting date on them. Stick them right next to the plant and then it will always be clear how much time it took them to get to that point of production. In years of excessive cold, drought or rainy weather, the plants will take longer to produce, so don't be surprised if you planted a "70-day broccoli", and it takes 90 days to head up.

Of course, to add to the confusion, the seasons aren't too regular--one year will have a super mild fall, the next will be full of early frosts or a drought. In fact, one year out of five won't be all that productive for winter gardening, but as we don't know when it's going to be, try anyway. You'll always get something out of it. And as your experience and soil improve, you'll produce a lot even with a poor season. Wherever you live there will be people with more experience. Watch and question them! Some may also know about winter gardening.





ANN STOKES

Generally when cold comes on gradually, by the time there is a hard frost, the plants can freeze (they are definitely hard and crunchy) and still be okay as soon as the weather warms up. This is known as hardening up. Even lettuce will do this as long as it doesn't go much below 30° for a short time in your microsite. This means of course that the soil doesn't freeze or at least no more than the surface.

Some form of temporary cover will help for the snowy and windy times--such as a wire frame to throw burlap bags over, or a cold frame with a movable top that you can leave open most of the time.

Intensive planting helps a little too. The plants are close together and they keep each other warm. It's only a matter of degrees, but in a mild climate like this, that will help.





LYNNE WEINERMAN

My garden beds look crowded to row gardeners, but they are productive. After all, except in a desert, this is how plants grow naturally.

Mulching is another good protective device. If you have worked hard to supply organic matter to your soil, you don't want to lose it to precipitation that erodes and leaches out nutrients, leaving the soil poor and acid. Also, worms and the microflora and fauna of the soil will be more active with the added protection and food. Especially keep bare soil covered. Seaweed makes a good winter mulch, if you have access to a beach.

Woodshavings are good for small plants like lettuce. They have a drying quality, and the slugs don't like to live under them the way they live under hay.

Slugs are of course more of a problem in the winter. I lay out wilted vegetable matter (outer lettuce leaves free from the local grocery) and pick the slugs off at night with the aid of a flashlight. Chickens love them.

## Consumption

If you and your family are used to iceberg lettuce, then oakleaf, chickweed and cornsalad can seem weird. You may have to re-educate your palate for some of these winter vegetables, and I suggest that you do it slowly.

Picking winter vegetables is a little trickier than picking the summer ones. In most cases you want to pick the outer leaves of the plant. This saves the inner ones and the rootstock to continue growth. Although in the summer you have to plant many successions of lettuce, in the winter you should plant stands in the ground and pick the leaves as they mature. Most plants should be picked this way. The exceptions are leeks and onions (just pull and eat the whole plant) and cauliflower, which doesn't seem to throw side shoots as broccoli and cabbages do. And of course, brussel sprouts, on which you pick the sprouts. This ability is known in the trade as "cut and come again." Many popular garden flowers have the same ability (marigolds, zinnias, petunias, etc.) and in fact, the cutting is necessary for the further production of flowers.

Some vegetables have chemicals in them that you don't want to overconsume. Beets, beet greens, French sorrel, Swiss chard, and spinach are all high in oxalic acid which interferes with calcium metabolism, so go easy on them. It's in rhubarb also, in another form, and is the reason why the leaves are poisonous and why you shouldn't eat the stalks too late in the season; the concentrations build up.

As you may have noticed, half of the plants on the list are members of the Mustard (Crucifer) family. Many people have digestive problems with these plants, especially the European varieties. Kale and the cabbages have been implicated in inducing goiter in areas where they were eaten intensively. So although they are among the most hardy of winter plants, don't grow them to the exclusion of the others.

## Communication

All sorts of people are reporting now that if you communicate properly with your plants, they will grow better. I rather think that the shoe is on the other foot. You should allow the plants in your garden to communicate with you. If you visit them daily and observe them quietly and carefully, you will soon see what their needs are and what, if anything, is obstructing their growth. Plants, after all, like to grow--it's their thing; they've been doing it for an awfully long time. What you have to do is provide them with the space and protection.

Gardening is an art, demanding of focus. Like any love affair, rhythms and dynamics are of greater importance than theories, and that means you have to be somewhat self-reliant, and depend on your own experience of what is happening.♀



# CALENDER FOR WINTER CROPS

## VEGETABLES

## WHEN CROPPED

### JANUARY

Beets, carrots, lettuce, onions  
in hot frame or hot shed

March - June

### FEBRUARY - APRIL

Celery  
Celeraic flats or frames  
Brussels Sprouts  
Leeks in seed bed  
Cauliflowers  
Cabbages (western heading varieties)

August - April  
Oct - March  
Nov - March  
Sept - April  
Aug - Nov  
Sept - Nov

### MAY

Parsnips  
Cabbages (Savoy and late varieties)  
Brussels Sprouts (if you missed before)

Nov - Mar  
Nov - Feb (Maybe later)  
Nov - Feb

### JUNE

Broccoli  
Savoy  
Leeks (transplant to perm bed)  
Salsify  
Chicory  
Winterkeeper Beets

Aug - Oct  
Nov - Mar  
  
Nov - Mar  
Lift and force indoors  
Oct - April

### JULY

Cauliflowers (autumn varieties)  
Beets (small varieties)  
Carrots  
Beans, pole and bush  
Peas (60 day varieties)  
Broccoli  
Chinese cabbages  
Kale

Nov - Jan  
Oct - April  
Sept - Mar (if soil free of maggots)  
Sept - Oct  
Sept - Oct (need good conditions)  
Oct - Dec  
Oct - till first heavy frost  
Oct - March

### AUGUST

Swiss Chard  
Celtuce, Lettuce  
Spinach  
St. Valentine's Broccoli  
Early Snowball Cauliflower  
Early Jersey Wakefield  
Oriental Mustard greens  
Radishes

Sept - April  
Sept - first heavy frost  
Sept - first heavy frost  
Feb - April  
Feb - April  
March - May  
Sept - first heavy frost  
Sept - Dec

### SEPTEMBER

Corn Salad  
Oriental Mustards  
Lettuce & Spinach in cold frame  
Onion sets for greens  
Early J. Wakefield (to 15 only)

### OCTOBER - NOVEMBER

garlic, shallots, onion sets, transfer lettuces to cold or hot frames, fava beans.

*This calendar doesn't include plantings of food cropped between June-Sept.*



# the queenly art of beekeeping

KATHLEEN DEBOLD

Over the past 100 years beekeepers have used many overwintering practices which we now know to be unnecessary and sometimes harmful to the bees. Early beekeepers thought that the whole hive needed to be heated by the bees in order for them to survive the winter. Based on the misconception, they devised ingenious ways to "help" the bees insulate and heat their hives. Some put their colonies into double-walled hives with feathers, leaves or some other insulating material between the hive walls. Some experimented with packing their hives, building special little shelters around them, or actually covering them completely with wax-coated cardboard. Trenching, which meant digging ditches and putting your hives into the ditches for the winter, was another dubious (not to mention strenuous) overwintering procedure. Some people still bring their hives inside their cellars for the winter. On the more modern side, some people now advocate the use of "hive heaters" - electrical devices to keep the hive temperature constant during the winter.

To the early American beekeepers, these practices seemed perfectly logical. Now that we know more about bee biology and bee behavior in the winter, we are beginning to see why these methods were never very helpful to the bees. When the outside temperature falls to around 50 degrees F., the bees form a cluster in their hive. A cluster is a tight ellipsoidal mass of bees. At the inside of the cluster is the queen and brood. The temperature in the center of the cluster is maintained at about 92-93 degrees F. The temperature at the outer edge of the cluster is kept above 43 degrees F. If the temperature of a bee's body falls below 42 degrees F., the bee will lose her ability to move and will fall from the cluster. To prevent this, bees at the outer edge of the cluster move back into the center of the cluster when their body temperature drops too low. Likewise, when bees in the center of the cluster are sufficiently warmed, they move out towards the edge of the cluster. Even though she is a cold-blooded animal, a honeybee with sufficient food can maintain a temperature that is higher than her surroundings. All of this warming activity, however, is directed only towards warming the cluster. The bees make no effort to control the temperature in the rest of the hive. Research has shown that hives heated up to 40 degrees F. show no different cluster responses from unheated colonies. If the colony is heated above 40 degrees F., the bees may break cluster, move around more, increase brood rearing - all of which add to increased honey consumption. This, coupled with the fact that the heat used to warm the hive area outside of the cluster is completely wasted, has led researchers to the conclu-

sion that heating hives is not worth the energy expended. It has also been shown that the area outside of the cluster falls just as low as the outside temperature - whether or not the hive is insulated. The only difference between insulated and uninsulated colonies is that the change in temperature is a little slower in the insulated colony. This may actually work against the good of the colony because if the outside temperature becomes warm enough for the bees to take a brief cleansing flight (healthy bees do not defecate in the hive and must wait until it is warm enough for flight before they can relieve themselves on the wing) the insulated colony might not be aware of the advantageous temperature change. Although insulated colonies may begin brood rearing a few days earlier than uninsulated ones, the regular colonies catch up in brood production as soon as the weather becomes warmer.

The early wintering practices were fostered by a belief that the biggest cause of winter loss was the cold. We now know that bees are very efficient heaters and can survive for over 100 days at temperatures below -2 degrees F. The most common cause of winter losses in kept bees is starvation. There are many reasons why a colony might starve. The most obvious one is that it ran out of food. This may happen due to natural causes - poor fall honeyflow, failing queen who produced too many drones and not enough honey collectors, intensive robbing by another colony, etc. - but the most usual cause of this problem is the beekeeper. Sometimes we just get carried away and take too much honey from the bees. If the bees run out of honey in the winter they will die. It is up to the beekeeper to leave enough food for her bees to winter on. The United States Department of Agriculture recommends that each colony be left 90 pounds of honey in October. A full deep super of honey is about 50-70 pounds and a full shallow super around 30. You will have to estimate the weight yourself and if you are ever in doubt about whether or not you should remove a little more - don't. Nothing's worse than having ten extra jars of honey and a colony that starved because you took their food.

Sometimes a colony of bees will starve to death even though there is adequate honey in the hive. This is called "cold starvation." If the honey is improperly positioned in the hive (below or to one side of the cluster rather than above it), the cluster may move right past honey stores and die on empty comb. The cluster slowly moves upwards during the winter, and the beekeeper should make sure that honey reserves are above the cluster as



# OVERWINTERING HONEYBEE COLONIES

they go into the winter. A cluster will rarely move downward to honey stores, so if your bees are in the top brood box and the lower brood box is full of honey, you should reverse the boxes so the bees are on the bottom and the honey is over them. Another cause of cold starvation is a small colony. A very small colony will not be able to cover the same amount of honey stores as a more populous colony and will starve if the temperature is too low for them to move to other honey stores.

As the cluster overwinters, it must consume honey in order to stay alive and heat the hive. For every ten pounds of honey that the bees eat, they produce about one pound of water vapor. If this water vapor escapes from the hive, everything is fine, but (as in a heavily packed or insulated hive) if the water vapor cannot escape, it will condense on the inside of the hive and will drip down onto the bees. To prevent this, the beekeeper should make sure there is a way the water vapor can escape from the hive. Some people drill a hole in the top brood box so that the water vapor can escape. This also provides an extra entrance in case the bottom entrance becomes clogged with snow, mud, or dead bees. The top entrance can be corked up after the winter. You could also just scrape the propolis off the inner and outer covers and leave the outer cover slightly ajar (put a little stick or something under the rim) to allow release of moisture.

Bees must be protected against wind. If the wind blows onto the cluster, the outer bees will be chilled below their limits and drop off. As more and more layers of bees in the cluster are exposed to the winds and drop off, the cluster will become smaller and smaller and weaken and die. The hive entrance should be faced away from the prevailing winds and/or located behind shrubbery or some other windbreak. If your equipment is holey or illfitting, it should be repaired or the holes should be plugged and gaps taped shut to prevent wind chill to the bees. If you are in an area of heavy winter winds, you should put bricks or cinder blocks on top of your hive to prevent the cover from blowing off or the hive from falling over. While we are on the subject of hive locations, make sure your colony isn't in an area which could be flooded by an early melt and that it isn't in a run-off path, etc. Colonies should not be in overly exposed places where they are apt to be stolen or vandalized. (I am unfortunately speaking from experience on that one. Last winter someone broke into one of my hives in West Virginia, cut out the honey and left the exposed cluster to die.)

When bees are in their winter cluster, the lower parts of the combs and the combs at the far sides of the hive are usually not in use. These combs

furnish the perfect winter nest for friendly field mice who can spend the season undisturbed by the clustered bees and then leave in the spring before the bees tire of their company. The only problem is that the mice destroy the beeswax comb to make room for their nests and the bees are hesitant to build comb where mice have urinated (mice do not have the winter self-control that the bees do!) and even if they do rebuild the comb, it is often undesirable cross-comb (comb running in different directions from the frame) or drone comb. The best thing to do is to reduce the lower hive entrance so that mice cannot get in. This can be done with commercial entrance reducers which you fit into the hive opening to make it smaller, or by improvising with a piece of wood or screen cut to fit the entrance and only leave a small opening for bee flight. Some commercial bottom boards are reversible and can be turned over in the winter to provide a mouse-proof entrance (one side is cut wide for summer use, the other side is cut thinner for the winter).

Before you overwinter your bees you should inspect them to make sure they are queen-right (have a queen), full of food, free of disease, and strong enough to last the winter. Most beekeepers agree that it is best to take your winter losses in the fall. This means that if you have a weak colony, one with not enough food, one that is queenless, or in any other way probably won't make it through the winter, you should unite it with another colony in the fall rather than let it die over the winter. When a colony dies during the winter, the bees usually die in the cluster which means that bees will be inside the cells and generally impossible to get out until you put new bees on the comb. If the weather starts to get warm in March and you won't get any new bees until April, the dead bees will start to rot on the comb and it is definitely a gross situation. Also, moisture will build up in the colony causing the combs to mold and the honey to ferment. Ants, flies, wax moths, and other bee pests will begin to attack the unprotected colony and you will end up losing a lot more than just the bees. If instead you unite the weak colonies with strong colonies, you can redistribute any honey they have to your other colonies and put the extra equipment into storage instead of leaving it outside.

I mentioned the wax moth as a pest of bees. The adult wax moths lay eggs inside of the hives. The eggs hatch into larvae which are worm-like caterpillars that eat through the combs making web-lined tunnels and leaving trails of feces. When it has finished this stage of its life it spins a thick, rough silken cocoon and can pass through



the winter in this protected condition before hatching as an adult moth and starting the cycle over again. In a normal colony, the adult moths are attacked at the entrance by guard bees before they can get in to lay eggs. If a moth does succeed in slipping past the guards, the larval wax moths are usually discovered before they do great damage and are removed from the hive by the worker bees. In a dead colony or a super of combs in storage, there are no bees to protect their combs and the wax moths can run rampant through the combs actually destroying every bit of comb and leaving the hive a mess of webbing, cocoons and feces. To prevent this, combs not in use should be kept in storage. Supers should be stacked no higher than five and moth crystals (Paradichlorobenzene or PDB) should be placed on the top super and a cover put over the stack. PDB gas is heavier than air and as the crystals volitize and become gas, the gas will permeate the lower supers. If you have only a few supers to store, they can be put into a leaf or trash bag with mothballs and closed up. Check the top super every few weeks to see if the crystals have disappeared. If so, add some more. If you have only a few combs or supers to store and a big freezer, you put the equipment in the freezer without adding any chemicals and this will keep the wax moth under control. Whenever you do use a chemical like PDB, always read the label thoroughly and use it only as directed. Honey for human consumption should be extracted before storing combs or should be frozen in the comb. PDB should not be used on stored honey for human consumption.

The most serious winter pest of the honeybee is a tiny single-celled protozoan called *Nosema apis*. This is the causative organism of the serious adult malady Nosema Disease. As I mentioned before, healthy bees do not defecate in the hive. Bees sick with Nosema Disease will defecate in the hive and in their feces are contained the spores of the Nosema organism. When a healthy bee cleans up the feces, it ingests the Nosema spore and becomes infected with the disease. The spores enter the digestive track and go into the cells that line the midgut of the bee. The organism then reproduces and the lining of the cell bursts and new spores are expelled into the contents of the midgut, pass through the digestive system and are voided from the rectum. The bees become weakened as their digestive cells explode with new Nosema spores. They become unable to fly and may be seen crawling around the entrance board of the hive. Often their wings become disjointed, their abdomens distended, and there is usually an absence of the stinging reflex. Nosema is a serious disease because it reduces the number of worker bees during the critical spring period when the colony needs to build up its strength. It may also attack the queen bee causing reduction in egg production and/or supercedure (the workers kill her and make a new queen) both of which are undesirable, especially in the early spring. Nosema Disease can be prevented by giving your bees a fall feeding of sugar syrup containing the drug fumagillan (Fumidil-B®). It is recommended that you feed your colonies one-two gallons of sugar syrup containing Fumidil-B® before wintering. The

formula is one level teaspoon of the drug to each gallon of 2-1 sugar syrup (2 parts sugar to one part water). Make sure you read the pamphlet that comes with the fumagillan in case there is any change in the procedure.

Here are the main points to remember about overwintering your bees:

1. *Inspect your bees before the winter.* Make sure the colonies are strong enough to make it through the winter. Weak colonies should be united with strong ones. (Colonies can be united by simply opening one, putting a sheet of newspaper over the frames, and popping the weaker colony on top. The bees will slowly eat their way through the newspaper, becoming used to each other's colony odors, the queens will fight and one will be killed, and the colonies will be one, united under the surviving queen.) Make sure all colonies are queen-right.

2. *Check the honey reserves of each colony.* Did you leave ample honey for them to survive on? Is the honey properly positioned above the cluster to prevent cold starvation?

3. *Check your hive locations.* Keep your hive away from natural hazards such as early season floods, high winds, and falling rocks; and away from unnatural hazards like marauding *Homo sapiens*. If your hive is in an area of high winds, provide some sort of wind break and put something heavy on top of the hive to keep the cover on.

4. *Provide good ventilation in the hive.* Make sure the water vapor produced in the hive can escape in some manner and will not condense and "rain down" on the cluster.

5. *Reduce the hive entrance to prevent entry of nesting mice.*

6. *Give your bees a preventative feeding of fumagillan.* This will reduce chance of Nosema infection.

Winter is the time to repair and refurbish old equipment and build new stuff. It is also the time to order package bees for next spring. Equipment that isn't being used should be properly stored so it will be in top shape for next year. Winter is also the best time to catch up on your bee reading.

Read anything about bees you can get your hands on. Beekeeping is really just applied bee biology. We know from bee biology that the cluster moves upward in the winter so we use that knowledge by putting the honey stores over the cluster. We know that bees do not try to heat their entire hive during the winter, so we don't put energy-wasting hive heaters in our colonies. These are just two examples of applied bee biology pertaining to winter management. The more you read about bee management and bee biology, the more you will be able to anticipate their behavior rather than react to it. And that's what makes a good beekeeper! ♀

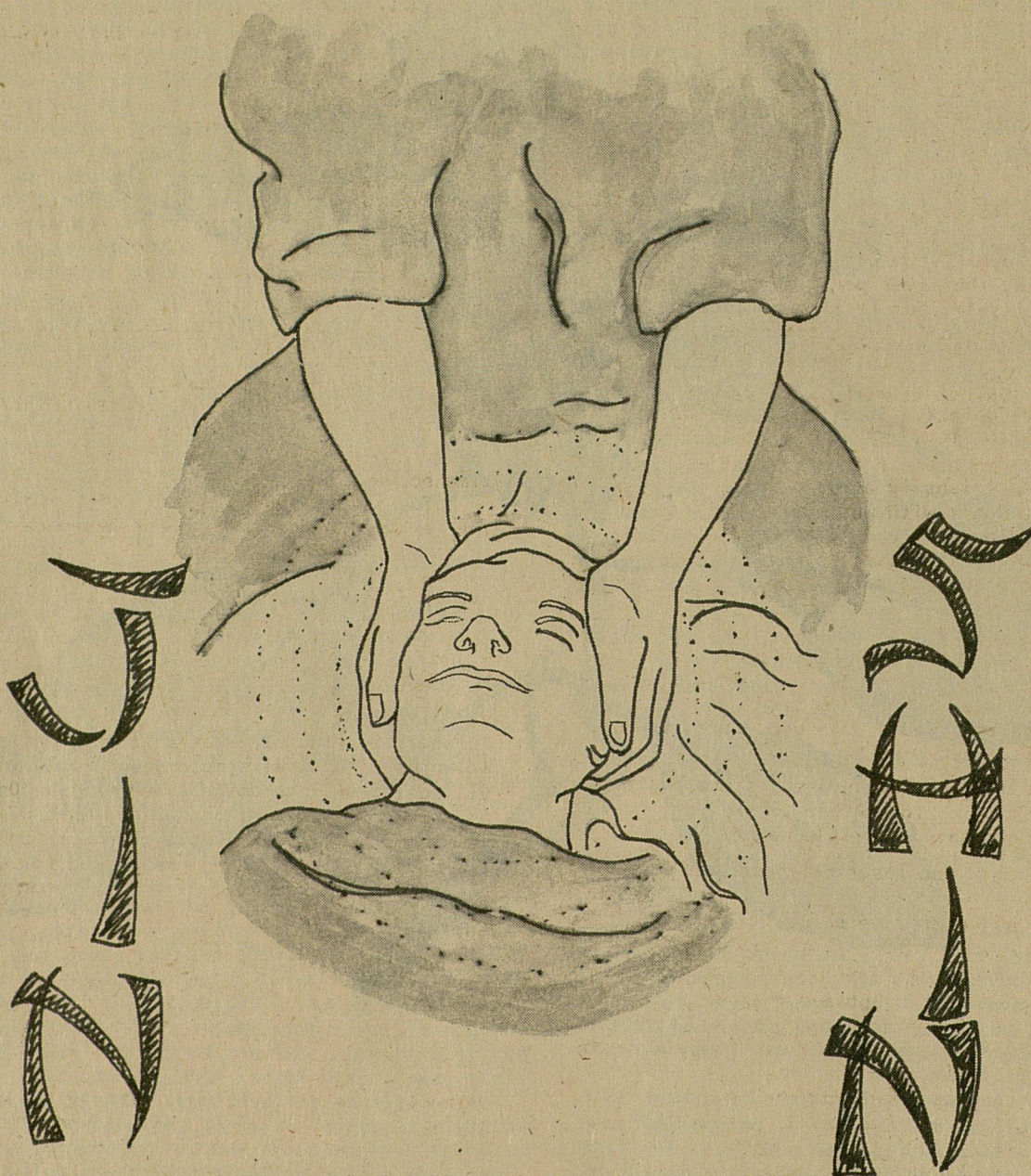




AUGUSTA

FRENCH MULBERRY — LA. NATIVE





*Barbara Gall-Birchard practices Jin Shin Do  
in Mendocino County, and teaches classes at  
College of the Redwoods.*

*Interview by Camille Pronger*

*Graphics by Yvonne Pepin*



CP: Barbara, could you explain what Jin Shin Do is?

BGB: Jin Shin Do means the way of the compassionate spirit. Compassion, in this context, refers to a means of health and growth through balance, to a path into the "flow"; it does not necessarily refer to a painless process, since growth is never painless. It's a form of acupuncture that works on four levels. It works with, first of all, channeling energy, on which every kind of healing technique is based, even Western medicine, only in a less conscious way. Second, it works with the acupuncture meridians. These are pathways of the energy that connect with organs in the body and control various functions and processes. They're also related to emotional states. Therefore, each meridian, in addition to controlling the organ that names it, governs functions in the body that perhaps, to Western eyes, seem unrelated to the organ. For example, the liver meridian gives energy to the liver itself, but it also affects the eye. Western people don't see that connection, but it's a basic part of this Oriental system of medicine. Third, it works with very specific acupuncture points. Some points on the meridian are more effective than other points. This is where Jin Shin differs from Shiatsu, which works with the meridians in a more generalized way. Fourth, it deals with what are called the eight extra meridians, which are balancing meridians. These meridians serve as balancers to the other twelve meridians and are not part of the meridian system that you see on acupuncture charts.

CP: What are the twelve regular meridians called?

BGB: Maybe this would be a good point at which to just list them.

Heart, small intestine, spleen, stomach, lung, large intestine, kidney, bladder, liver, gall bladder, circulation, triple warmer.

CP: How would you describe these meridians?

BGB: They flow as rivers flow. Their energy is always moving through your body. The balancing meridians function as lakes or reservoirs, and the relationship between the two types of meridians is like that between rivers and lakes. When the river overflows, it can flow into the lake or reservoir, and when the river is low, it can get increased flow from the lake or reservoir.

CP: Is this the way people are able to get extra energy during crises or moments of great stress, as when they're fighting fires or rescuing someone from some physical danger?

BGB: Yes, it does work that way, but it also functions in less dramatic ways, in our everyday life. When you've eaten a large meal, and your stomach meridian needs more energy, it can get it from one of the balancing meridians. Actually, the adrenal energy you're talking

about is related more to the kidney meridian. People in this society tend to deplete this kidney energy by fatigue caused from overwork, unexpressed emotions, excessive liquid intake, misused sexual energy and the use of drugs. For instance, marijuana releases energy, somewhat in the way that coffee does. It gives you a buzz of energy, but then a couple of hours

later you come down hard. Some people get very energized from marijuana, and a lot of people get turned on sexually. It seems to be giving you sexual energy, but what is happening is that it is draining the kidneys. So you get an initial rush of sexual energy, and it's gone within an hour. Because you've drained your kidney energy, you experience fatigue and have less energy available to you for crisis situations, creativity or self-healing.

CP: Obviously, judging from its name, Jin Shin Do is an Oriental healing art. I'm curious, though, to know more about its origins.

BGB: It's not very old. It has been intuited within this century. A man named Jiro Murai lived in Japan during the early part of this century. He was very decadent and drank a lot, and was dying from his overindulgences. When he went to the mountains to die, he had a very high fever. This lasted for seven days, during which time he was in an altered state of consciousness. He suddenly felt all the meridians in his body. The fever opened him up and he became a channel, aware of his meridians and his blockages, and so was purged by the fever. Because his life had been saved by this awareness, he dedicated the rest of his life to teaching others about this form of healing. Because of this experience, he knew where the meridians were in his body, but he had to learn the treatment patterns.

In order to find out what treatment patterns would work for what symptoms, he would go from village to village doing experiments. One day, he would call all the peasants around him who had headaches, and he would then work on them until he found out what points worked for what conditions. He did this over and over for various ailments until he came up with this particular system of combinations of certain points for particular conditions. He didn't necessarily just treat the symptom (for instance, holding three points for a headache), but he understood and treated the causes and thus eliminated the symptoms.

CP: After he had developed this system, how did he pass it on so that it was preserved?

BGB: It's a miracle that it happened. He had several disciples, but because he traveled a lot, there was no school where they could come and study with him. So he wrote them letters. I saw copies of some letters he wrote, and he had just drawn stick figures with the points indicated on them. I don't know how anyone could have figured anything out from them, but the spirit must have been there to help the disciples understand what he meant. One of his



disciples was Mary Iino Burmeister, a Japanese woman who married an American and came to this country to live. She is probably in her sixties now, and is teaching in Arizona.

CP: How did you get involved with this form of healing?

BGB: I was looking for a healing profession, and I was looking for the right technique for me. I was drawn to take a class, and that's how it began. I worked as an apprentice with my teacher, Iona Teegarden in Los Angeles, after I had taken her class, and then I worked as her assistant for a year and a half. Then I moved to where I'm now living and started doing Jin Shin on my own.

CP: Could you describe the process that you go through and what actually happens when someone comes to you for a Jin Shin session?

BGB: I use a massage table that is approximately twenty-eight inches from the ground, and I work sitting on a chair. Applying pressure to the points on the body is usually done with my middle fingers, for about two minutes on each point. There are two levels at which I operate. One is the actual physical one of pressure into the muscles and along the meridians and the other is channeling healing energy into the areas of tension. I stimulate two points at a time. When there is too much energy at one point, the excess is directed to the other point, or an associated area. If there is a deficiency of energy, I bring energy to the points that need it.

CP: Could you give some examples of ways that Jin Shin has improved peoples' health?

BGB: A dramatic example would be that of a woman who had a large ovarian cyst. The doctors thought it was dangerous and they wanted to operate. The woman was conscious that she was creating the cyst. I should point out here that the meridian that controls the ovaries is the same meridian that is related to our sexual energy. At this point in her life she was having a lot of conflict with her lover, so the sexual energy was not clear. She realized that when her emotions were straight with this man, there would be less pain, or the pain would go away entirely. When she accepted the responsibility for keeping her emotions clear, then the cyst began to get smaller. By working with what is diseased, with the part of the body that is holding negative energy, you can also release a lot of the emotion that is causing the blockage. Then when the emotion is released, it's easier for your own mind to take control and get you centered again. This woman worked with visualization and centering between sessions, and the cyst began shrinking. The pain disappeared.

Another example is something that happened to me a while ago. I was getting ready to start a class that I knew was going to put me in a place of growth, and the week before I was excited and

apprehensive. I had a lot more fear than I realized. My unconscious was going through a fearful state because it knew that a lot of it was going to have to surface. My being's response to this unrecognized fear was to get a bladder infection. In Oriental medicine, the bladder and kidney meridians are directly related to fear. I wasn't allowing myself to experience the fear at a conscious level, so it expressed itself in my body.

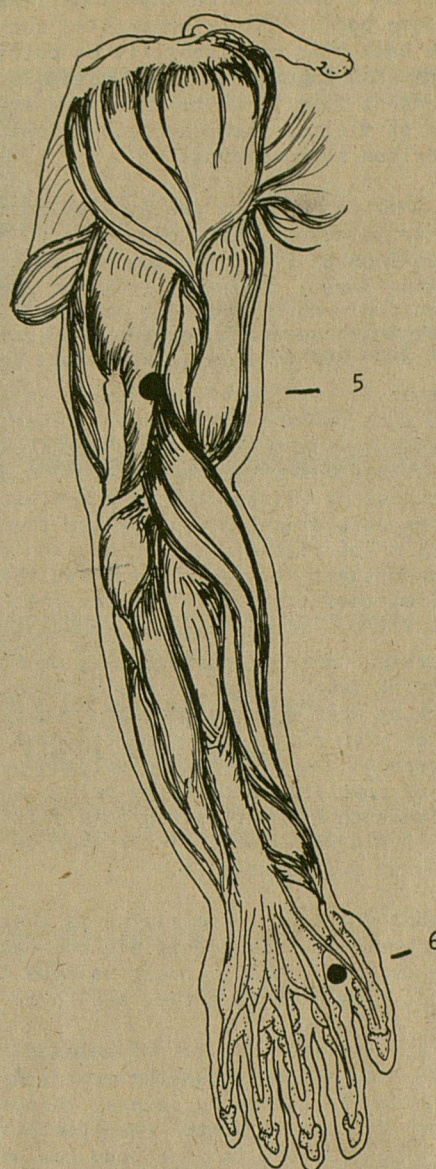
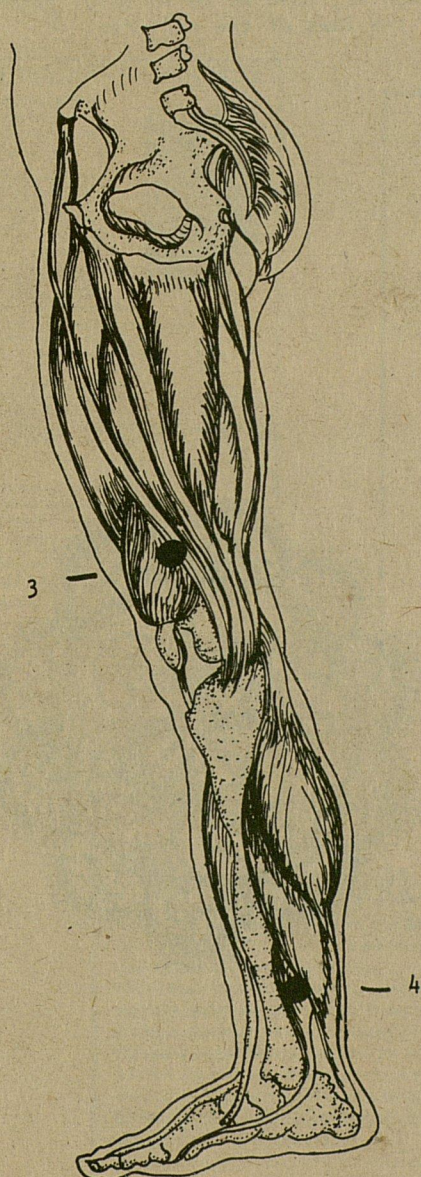
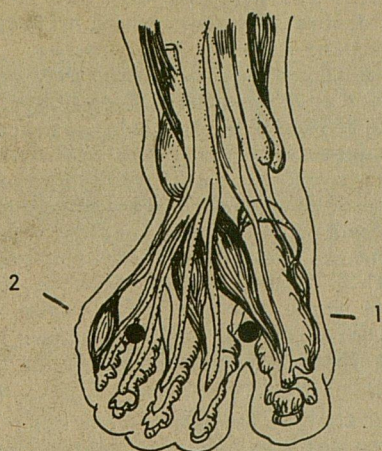
CP: The examples you've given illustrate the importance of taking an active, positive approach to one's own state of wellbeing. In the past, the word "health", at least in Western medicine, has primarily referred to an absence of disease. Now, however, so many changes are taking place around this concept that I'd like to hear your definition of health.

BGB: To be healthy is to be able to function in such a way that you are capable of doing whatever you want to do at any point in time. What sometimes happens is that as we grow and expand, what we want to do changes and our level of health has to change too. If you have the physical and mental stamina to maintain your lifestyle and accomplish your goals, for you, at that time in your life, that can be considered health. As you start expanding your goals, however, your health has to rise with your dreams. As your dreams get higher, then your body-mind-spirit has to rise to meet those dreams, so that they can be fulfilled. As you evolve, you need to keep refining your body-mind-spirit in order for higher vibrations to be able to pass through you and manifest themselves in the physical world. Jin Shin is one of the techniques you can use to help you do this. What can be considered health is different for each one of us, and changes as we grow.

CP: A teacher of Tai Chi Chuan said something once that I'd be interested to hear your reaction to. He said that sometimes people are fairly healthy without giving too much thought or time or attention to it. This usually happens because their habit patterns as to diet, exercise, etc. are well-suited to whatever their bodily needs are, so they rarely have health crises.

BGB: If your habits were maintaining a certain level of health, and then you added one new behavior, for instance, meditation, you might become very, very ill. This is very common when people begin doing yoga or meditation or become vegetarian. What is happening is that their body is receiving higher vibrations from this new activity, and it has to catch up to the demands that are being made on it. They will then need to do refining work or purifying or fine tuning of their body. This can take the form of a better diet, exercising, and keeping yourself unblocked, that is, releasing muscular blocks, which involves releasing a lot of emotional patterns, as well as mental rigidity.





1. (Liver 3). This point, in combination with #6, can be used for reorienting ourselves, for instance after jet lag, or during periods of confusion or shock.
2. (Gallbladder 41). Used for any kind of water retention, especially pre-menstrual.
3. (Spleen 10). Known as the sea of blood, good for any kind of blood disorder and menstrual cramps.
4. (Spleen 6). Triggers menstruation. Also useful for vaginal infections.
5. (Large intestine 14). Helps stiff neck or toothache. Also good for immobility or numbness of arm.
6. (Large intestine 4). Good for headaches, constipation or depression, which are caused by blockage of descending energy.



CP: It also seems to me that sometimes people have some bodily injury or crisis, such as a severe back pain or disability or cutting their fingers on a power saw, that appears suddenly, and doesn't seem to be triggered by any conscious action of theirs. How can people deal positively with crises such as these?

BGB: They can provide the impetus to move onward, or to move higher, depending on how you like to look at it. When you are functioning at a healthy level, sometimes it's too pleasant and you don't want to go out of your way to grow. You may think you want to, but you just can't get it together to do it. When that happens, I

feel that at some level, we decide we're going to get sick or have an accident. There are people who allow themselves to get sick, and because they don't realize that the condition of sickness or illness can be a motivation to overcome this disability, they see themselves as victims of that disease. They don't seize this opportunity to grow, but treat the symptom and allow themselves to slip back into their former state. So even little accidents are indicators. When I start cutting my fingers or burning myself a lot in the kitchen, I try to look at what's going on, not just from the point of view of telling myself I have to be more careful, but to look deeper and see that there is some imbalance in my being, and that the imbalance is manifesting itself through these little accidents. I try then to look for the source and correct it.

CP: What you seem to be saying is that from balance comes health. What are the factors inside us that, through their balance or imbalance, create in us either health or dis-ease?

BGB: *All* dis-ease or lack of balance is created from tension which blocks the energy flow. Tension can be caused by several things. One of them is improper diet. When you put the wrong kinds of food in your body, or when you overeat, you create an added strain on your digestive apparatus and an imbalance will be created, causing tension in the organs of your body. Once there is tension in the organs, then it will be manifested in the meridians, and the muscles will become tight. Tension can also be created by chronic improper movement of the body, lack of exercise, and emotional events.

CP: Jin Shin, as well as Shiatsu (another form of acupressure), Tai Chi Chuan, Yoga, herbal medicine, and other forms of Oriental therapy (as well as some rather new therapies) seems to emphasize the importance of balance in having good health. Another thing these various therapies have in common is the aim of restoring to individuals their ability to deal with their own health. I know that you teach classes in Jin Shin to help people take more responsibility for their own state of health. Do you feel that people really use these techniques they learn, on themselves or others, to increase their level of health?

BGB: Yes, I believe they do. One of my greatest doubts, however, when I first began teaching classes, was whether they would use the information they were getting. I have gradually found that the proportion who do is high. Several of my students have said that the most important thing for them in the classes, however, was not so much the techniques they learned, but the realization that they could take responsibility for their own health. To generalize a little, one thing that these new and newly rediscovered therapies you mentioned have in common is that they encourage you to take total responsibility for your *life*. One way to do that is to get the energy moving--to get the negative energy out and the positive energy flowing through us. Once the positive energy is flowing through us, then we're in total harmony with the laws of the universe. ♀



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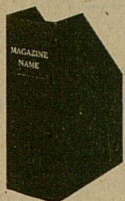
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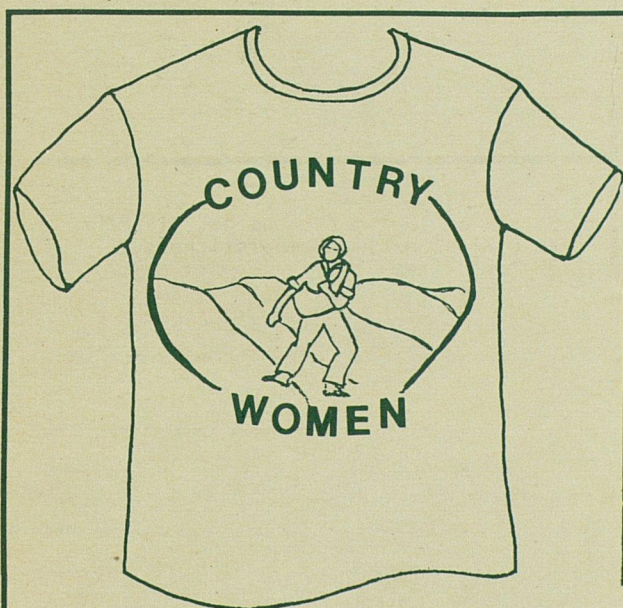
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