

When You Have a Cow You Have it All- transcription

1.1 My Background - Cows were not part of my childhood. I was more enthusiastic about horses. At the University of California at Davis agricultural school I studied animal science and began to become more interested in cows. My husband Jack Luick was a graduate student with the great Max Kleiber whose work on animal metabolism continues to be the basis of our understanding to the present time. By the 1950s, Klieber and his team's research focus was on calcium metabolism in dairy cows. Their work remains the foundation for our understanding of milk fever, the often fatal metabolic disorder which causes many dairy losses after calving. Their research has been the basis for all studies in cow metabolism.

1.2 Lattenden Farm - With my second husband Merrill Grohman I published the weekly newspaper the Pacific Sun in Marin County, CA. Later we moved to England where we owned and operated a 120 cow Jersey dairy. I became intimately acquainted with both the fascination of dairying and its nearly inescapable pitfalls.

1.3. Coburn Farm - In 1975 we returned our family to the United States and settled on the little farm in Maine where I continue to live. Merrill, a restless soul, soon left and I embarked on a crash course in raising three young boys with no money and one cow. Somehow or other I made it. In those early years, which I don't look back on with horror, I developed a sense of some of the benefits of having a cow. One time when I was depressed about it a friend said, "Look on the bright side. Suppose your cow had run off and left you with your husband!"

Benefits of Owning a Cow

2.1 Family Life

If you have a cow you aren't actually poor. With milk on the table, every meal is nutrient dense. But looking back, I believe of equal importance is the character building potential of life on a farm. I don't think it is any coincidence that so many of our great statesmen grew up on farms. Along with healthy bodies, children develop a strong sense of responsibility and clear sense of the relationship between working and eating that lasts a lifetime. When you are taking care of animals on your farm you always know that you are doing something that is worth doing. Furthermore, even a brief acquaintance with growing your own food provides a sense of control over your own destiny. And when you have a cow you soon find a strong sense of groundedness to the place you live. You love being at home.

2.2 (1) Healthier Family-Bone structure

I was already aware of the key importance of milk to bone structure. There is no other reliable source of calcium in the American diet. In the early 1950s, soon after I began having children, I was introduced by the work of Adelle Davis to the

relationship between diet and bone structure. Her book "Let's Have Healthy Children" was the beginning of my education in nutrition. Her chapter "Your Child Has the Right to be Beautiful" taught me to recognize that good bone structure is no accident but depends on a diet of natural foods, especially milk and adequate Vitamin D. This chapter contained a compelling description of the work of Weston A. Price who was largely ignored in the following decades until the work of Sally Fallon Morrell once more brought him into prominence. I could see it working for me. Raising my large family I never spent a cent on orthodontia.

2.2 (2)Lactose Intolerance, A1A2

Once your family begins drinking raw milk, you'll probably be surprised at how many troubling symptoms of ill health disappear. Lactose intolerance will cease to be an issue. The enzyme lactase is required for the digestion of milk sugar (lactose) and is produced in the digestive system of all mammalian babies. In some people after weaning the production of this necessary enzyme dwindles. These people can still drink raw milk because without pasteurization, milk will immediately become colonized with lactobacilli which produce the necessary lactase. It has been suggested that because many African Americans are lactose intolerant they are not meant to drink milk. The people of Africa have herded cows for thousands of years, drunk their milk, and valued them as their principal currency. But they didn't drink pasteurized milk in which there is never any enzyme activity.

If digestive symptoms persist, explore the possible role of the A1/A2 casein molecule. The existence of the casein variant called A1 was discovered about ten years ago by researchers in New Zealand. This variant form of casein causes serious indigestion in some people. It is entirely distinct from lactose intolerance, neither is it an allergy. It is caused by a mutation in casein, a principal protein in milk. This variant is now widely found in cattle of northern European breeds. For those interested to learn more about this, an excerpt from my book is available with my handouts.

2.3 Flavor

In listing the virtues of raw milk, flavor is rarely included. Yet when people are introduced to the milk from my cow the first thing I always hear is how wonderful it tastes. When children have drunk milk here at the farm their parents so often tell me the child has asked when they can have more of Jasmine's milk. The delicious flavor of raw milk contributes enormously to its nutritional importance. People not only drink more but everything made with your home dairy products will be more flavorful. The need for elaborate seasoning is greatly reduced.

Cream most especially is a completely different product when skimmed from your own milk. It becomes very clear why the word 'cream' has become synonymous with quality. It is impossible to overstate the luscious difference between real fresh cream and the sanitized, artificially thickened product available in the supermarket, with its chemical undertones. I consider a day without cream to be difficult to navigate. The flavor difference is hard to describe but you might get some sense of this by considering the difference in flavor of a tomato warm from your sunny garden and something available in

winter in a plastic carton. The difference of butter and all dairy products is of a similar magnitude.

2.4 The Cow feeds the Whole Farm

Not only will you have the benefit of tastier dairy foods but the flavor and nutritional effects extend to the other animals on your farm. At times, most of us find ourselves with more than the family can drink. This is where chickens and pigs are a blessing. They will eat many types of plant foods, but for growth and reproduction their diet must include animal protein. Your skim milk will fulfill this requirement, making it unnecessary to buy expensive feed. Chickens and pigs have traditionally been raised without off-farm inputs as they can get along with the leftovers from your other enterprises. They need not compete for human food as long as you have a cow to provide their protein requirements. If you still have excess skim milk or whey you can dilute it with water to any convenient proportion from 3:1 to 20:1 and sprinkle it on your pasture or any crop. Results of this application will amaze you.

If you wish to grow your own feed, your cow's needs are easily accounted for with grass and hay. She generates her own protein from these if adequately fed. I'd like to make it clear though that my cow has nearly always received a small amount of grain. Otherwise she cannot maintain her weight. It is not as hard as you think to grow your own small amount of grain. Corn, especially, is an easily produced grain source.

2.5. Security When one young family member saw this subtitle she said "Oh, do cows drive off intruders?" While it's been known to happen, what I really meant was that a cow provides food security. Weapons and high fences may have their value in some circumstances but there is nothing like having your own local food. Everything you need for life is available without the need to import anything from another county let alone the other side of the world. Supported by your cow, you can provide your household with everything you need except toilet paper and coffee. I might add that in case of a power outage you can still milk your cow by hand and not miss a beat on her benefits.

3- Misconceptions about Cows

1. Compete with humans for food.-- I listen to many talks by highly qualified scientists and others deeply concerned about our future, as well they might be. Some are concerned about climate change, others about starvation. In their summary remarks – I wait for it: their suggestions for how we can mitigate disaster always include a well-meant suggestion that we eat less meat on the grounds that to do so will liberate more resources to grow human food. Few seem to question this supposed cause and effect. Animals are not competing with humans for corn and soy. The fact that these crops are being fed to animals reflects the artificial circumstances in which the animals are being kept. Cows are being criticized for making inefficient use of what is not their natural food. This use of land and feed is part of the agribusiness/CAFO complex. A more courageous suggestion would be to banish CAFOs and feed animals locally on their natural food.

Furthermore there is no shortage of land. An artificial competition has been set up leaving animals especially cows as offenders. There is no shortage of land or resources for local food production, although current usage is inhibited by restrictive zoning.

Food production in an integrated small farm system is capable of being far more productive per acre since all of the different parts support each other., plus benefiting from the hand of the owner. As they used to say, “The eye of the master fattens the livestock.” The cow’s manure goes to feed the soil instead of causing pollution. This feeds crops which feed humans and all other animals.

2. Water requirements. Simon Fairlie, in his wonderfully readable and important book “Meat, the Benign Extravagance”, devotes an especially witty chapter to the water requirements of cows. Fairlie spent an entire year trying to find the basic scientific studies that would support allegations that cows use enough water to float a battleship. A common allegation is that a cow uses 25,000 gallons of water for every pound of meat. For some beliefs about cattle there seems to have been some original germ of fact on which tottering accusations are perched. For these water claims there is nothing. As a reality check, Fairlie gives us the life story of his steer, Bramley. For a year and a half on his acre of grass Bramley was happily satisfied with his tub of five gallons of water a day. Most of this water Bramley used to anoint the grass. The rest left his body as vapor or was incorporated into his flesh.

3.3 Fossil Fuel Use In 2009, a United Nations Food and Agriculture Organization (UNFAO) paper entitled “Livestock’s Long Shadow” published the statement that livestock accounted for 17% of carbon dioxide (CO₂) contributions to the atmosphere, greater than the contributions from transportation. This claim was soundly refuted by qualified experts within hours of publication. But too late. The claim appears only in the introduction to the publication and is not supported within the text of the paper itself. It was seized upon by reporters and trumpeted around the world. It has become an unchallenged meme quoted without question. This exaggerated fossil fuel use by livestock is only related the agribusiness model of livestock management. For reasons best known to himself the author of the introduction bundled everything from the manufacture of the tractors that produced the animal feed, the milling and transportation of the feed, and everything else related to livestock production into their fossil fuel account. In the case of transportation he counted only direct use of fossil fuel when driving. It bears repeating, the natural diet of cattle is grass.

3.4 Methane. Methane is produced during anaerobic fermentation, which is fermentation in the absence of oxygen. The cow’s rumen is a fermentation vat in which bacteria break down cellulose from plants and use the liberated carbohydrates as an energy source to build complete protein. Any energy left over will be liberated as methane. Periodically the cow belches and releases the gas. This is the process by which grass is converted into the world’s most perfect food, milk. Far from congratulating the cow on her magic, reporters presuming that the methane gas left through the cow’s rear exit, made this the subject of endless humor. Vegetarians and others immediately blamed cows for contributing to climate change with their methane emissions. Cows and all living things that subsist solely on plants produce methane. This is the way nature has always worked. It has never unbalanced the atmosphere.

4.1 Immunity—Arthritis Since the theme of this conference is curing disease, I will share a couple of examples of my own. About ten years ago my hands began to be red and swollen. Arthritis was afflicting my fingers. Up to this time it had seemed to me that I was being adequately defended against arthritis by the Wulfzen Anti-Stiffness Factor. This is a factor found in raw milk that was first identified in the 1920s. It does not survive pasteurization and consequently has never been of commercial interest. It is a fragile factor which breaks down quickly after leaving the cow. I theorized that I would be taking best advantage of it by drinking milk still warm from the cow so I brought my mug to the barn with me and began milking out a personal cup. I had never been in the habit of drinking fresh warm milk since I didn't think I would like it, but it turns out to be absolutely delicious. No wonder calves get so excited. Within a relatively short time my painful swollen joints stopped hurting and the stiffness left my hands. The only time the pain returns is when I can't get my fresh milk.

4.2 Antibodies. In the early 1960s, I was given a publication from the University of Florida Experimental Farm in which the author reported his studies in antibody production in the cow. What he found was that the cow is able to detect pathogens in her nursing calf. Within four hours she is producing specific antibodies in her milk. I have put this information to work for me many times with my own cow here on Coburn Farm. Any time I suspect that I am getting a cold I kiss my cow on her nose. Since I then never get sick I assume that she is producing antibodies for me just as she would for her calf. Many other cow owners to whom I have described this practice report equally consistent results. It is now known that human mothers produce antibodies in the same way, and presumably other mammalian mothers are doing the same.

5.1 Amazing Grass -- This humble plant truly is amazing. All plants remove carbon from the atmosphere and incorporate it into their structures. Most plants if bitten off regenerate slowly or not at all. Loss of growing leaves is a severe setback. Trees sequester a lot of carbon in their leaves and trunks but when the tree dies that carbon will mostly be released back into the atmosphere, and more quickly in case of fire. The growth nodes of grass are at the soil surface. When grass is eaten it is a signal to the plant to send up new leaf growth, resulting in denser turf. Grass compensates for the loss of its leaves by also dropping an equal amount of roots, leaving the carbon in the soil. As grass is trampled by grazing animals it is pushed underground along with manure and urine where it decomposes and its carbon feeds soil microbes. The more grass is eaten, the faster it grows and the more carbon it captures and stores underground. This property of grass is entirely dependent on the presence of herbivores. Without the nibbling, trampling and fertilization of herbivores, grass fails to function as the massive carbon sink which it is capable of being. Grass without grazers dies above ground and loses its carbon to the atmosphere.

5.2 Allan Savory. -- Allan Savory has greatly expanded our understanding of the work of which grass is capable. Savory was born in what is now Zimbabwe to a long established colonial family. His life has been devoted to rebuilding grasslands. Careful observation and a courageous willingness to move past older ideas (including

his own) has enabled him to understand grass and its interdependence with grazers, predators and the soil. Working both in Africa and the United States, he has demonstrated how desertification is initiated and reversed. Savory shows that grass must be encouraged by herbivores. To properly encourage grass, herbivores must graze in a dense pattern. Grass achieves its maximum turf-building response only under grazing pressure of bunched animals, then the animals must move on, leaving the grass to regrow. In the wild this is absolutely dependant on the presence of predators, otherwise the animals will stray apart in a random fashion and the turf-building effect is lost. It can't be overemphasized: grass, cattle and predators evolved together and are mutually indispensable. Soil fertility is the result of their alliance. This is the perfect example of ecological unity.

6. Marin Carbon Project-- I want to share the news about the Marin Carbon Project. This is a research project initiated by a Marin County, California rancher named John Wick who as Allan Savory had once done, discovered that removing livestock from his land and resting it had the reverse effect to what he was seeking. Both density of turf and soil fertility diminished faster than had been occurring with livestock on the range. He wanted to try a new approach. He teamed up with a biogeophysicist named Whendee Silver, a soil scientist with a lab at Berkeley, who is one of the world's foremost soil carbon sequestration experts. She agreed to do the study despite initial skepticism. What he wanted was a controlled study that would yield unassailable statistics. With the cooperation and support of other interested ranchers in the area, Wick spread compost a half-inch deep over several large test plots. Adjacent plots served as controls. After a year, core samples were taken to measure soil carbon to compare with samples taken at the beginning of the trial. At the end of the year, carbon in the treated plots had increased by a ton per hectare, not counting the carbon in the compost.. They have now measured an additional ton of carbon per hectare per year without adding any more compost. This is new carbon in the soil which had been removed from the air.

Carbon behaves like a sponge, the treated soil held three times as much water. Other ranchers in his area have also begun applying compost. They noted that the land carried more cattle. Allan Savory has often written in describing his own experience that many more cattle can be supported, and what Savory found is that the land profits from the additional livestock. What Wick has shown is that grasslands are capable of sequestering large amounts of carbon. What Whendee Silver found with their core samples is that this newly sequestered carbon moves downward to lower soil levels where it remains in stable storage unless it is plowed. Using computer modeling, Dr. Silver's research group asserts that if half of California's rangeland were treated with compost in this way, in any given year as much atmospheric carbon as is emitted by California's traffic could be removed from the air and permanently stored. Land restoration, improved air quality, and increased agricultural productivity have been claimed by Savory and many others. What the Marin Carbon project does is provide solid proof that by working with natural systems, our air and soil damage can be reversed with unexpected speed. Complete statistics on the Project are available online.

7. Summary -- I'm hoping you all will want to spread the word about this incomparably important study so that we will hear less about technofixes involving filling the sea with

iron filings or building machines to put carbon down holes in the ground. The Marin Carbon Project proves that by working with a natural process we can both feed ourselves and reverse global warming. Furthermore, it is something that we can all do ourselves without waiting for someone to form a new government agency and hire contractors. It is clear that far from being a destructive force, cows are the key to rebuilding air quality, soil fertility, and family stability. Cows provide for us by completing the cycle of life on our own farms, or on the rangelands of the world, turning sunshine into food of the highest quality.

When you have a cow, you have it all.