

## **Turning played out land into a resilient farm the Hoffmans of Owsley County, Kentucky**

A little over forty years ago, there was an influx of new settlers to Eastern Kentucky and areas throughout rural America to start life anew, to live simpler and closer to the land. Many of those who settled in Eastern Kentucky, a rugged place with limited arable land and economic infrastructure, didn't have the skill sets or abilities to make it. We set out to visit one of the few exceptions, a couple in Owsley county. The Hoffmans moved onto a 77 acre plot 44 years ago for about the price of a Buick and have built a well groomed and diverse farmstead in a little hollow on the outskirts of Booneville.

As we wended our way up the little road to their farm, past the dogs lazing nonchalantly in the middle of the road and the occasional tractor, raking hay for unseen livestock. The terrain in Eastern Kentucky is rugged, but there are a few spaces where a farmer could eke out a small livelihood outside of Booneville. Much more space compared to some of the surrounding countryside where sometimes little houseplots seem to hold onto the ledge of a ravine for dear life.

We turned onto Hoffman road and pulled up alongside a nice little cabin among a stand of blueberries and a little strawberry patch. Across the road was a barn where two folks stepped out to greet us. Neil and Denise Hoffman- looking both cordial and tough as nails, greeted us and invited us to enter the barn. We were company to a decent little number of goats. Mostly Kiko. A couple nubians. The Hoffmans have milked Nubian goats for 25 years, and a while back they had a feeder pig operation as well. Whenever a sow would birth a litter that was too big for her to be able to feed properly, Neil would milk one of the Nubian and bring the piglets goat milk in a little pan.

While most other livestock such as cattle and pigs have become increasingly unprofitable for small producers because of the ascendancy of factory farms, goats have been a stable and relatively profitable alternative. Neil and Denise started their meat goat operation with Boer goats, starting a meat goat association with some 25 area farmers. Boers, however, were horrible mothers in their experience. They would go out to graze and leave their young in the woods, completely unaware that anything had happened. Their thinking Boer x Billy would be an improvement. The Kikos they have are incredibly high energy, they hope that crossing them as well would calm them down a bit.

As Neil opened the gate, the goats scrambled out the back of the barn and up the hill, that looked well grazed and travelled. Despite the angle, there seemed to be a good amount of soil for a hillside. Goats and pigs have done well to help in clearing much of the Hoffman farmstead.

They led the Resilience crew back out and towards the farm house, bringing up a topic that would be a regular fixture of discussion as we neared the berries and onions; rain. Too much rain, all the time. This year, it's been difficult to get hay baled up in time. It rained 9 inches the previous July. Same as the year that Neil helped to start the producer cooperative in 1984. When they started the Kentucky Mountain Farms Cooperative, they had concentrated on peppers and cucumbers. Sensible enough, there was a small pickle company in the area and they had secured contracts with Campbell's soup for the peppers. Unfortunately, it is difficult to harvest peppers and cucumbers during spells of torrential rain and there would be piles of drenched culls. Neil is skeptical as to whether it is possible to grow commercial veggies in Eastern Kentucky on account of the fact that it's often a rainforest.

This year marks the first in 23 that they won't be going to farmers markets. Time to wind things down

on the old homestead. Regardless, there's a nice little array of crops in the gardens below the house. Denise leads us to the strawberries. A little patch by all accounts, maybe 12 feet by 40. They'll still pull 5-600 gallons out of it. Even after the deer mowed a bit of it down back in October. They had gone for a few days and the dogs opted to guard the neighbor's house instead of theirs. Now, there are ribbons of electric fencing surrounding it. There were fifty plants there. Through the years, they've changed up strawberry varieties. The latest, Darselect, is a long-season variety that has dependable yields, rain downpours or not.

The summer has been mild and slow in its onset this year. That, coupled with the rain showers, many of the farmers are getting to their weeding and tillage and hay late and everything lags. Neil and Denise are very aware of this and have a keen understanding that in these days of erratic, unpredictable, and intense weather; one has to be able to adapt and roll with the punches. "The difference between a good farmer and a bad farmer is two weeks." Neil says with a mixture of humor and time-weathered exasperation. We make our way past a gnarled and heavily fruit-laden apple tree whose largest bough juts out and down the slope of the front yard towards the street. It had been threatening to pull the smaller limbs and trunk out of the soil and down to the road but the Hoffmans had intervened and planted a solid post under it. This is one of the few farms in Kentucky that can keep a fruit tree loaded and the berries healthy under threat of so many moisture-induced wilts and fungal infections. They picked 136 pounds of strawberries one time and couldn't market them quickly enough. Fresh strawberries never have to be peddled too heavily, they are a rare and delicious enough find here that people usually come to the driveway and pick them up. They never take them to the farmers market except for the one time they picked 136 pounds, they drove the bumper crop out to the Hazard County Farmers Market and were practically mobbed for them. Denise brought a little chilled bowl of them and passed it down the line of chairs for everybody. She said these were small and tart because of the weather, but they made you understand why people would be eager to drive across county lines through these sweeping hills to get enough to stock a freezer. They do a new patch every year, because after the initial grow year, yields drop precipitously. They'll plant Broccoli and Fall Cabbage for the cold crop rotation, and both plants serve to disenfest the soil.

Many people haven't had the opportunity to eat real fruit. Most commercial storebought strawberries and tomatoes are picked green, before they are able to contain vitamins and lycopene of any significant amount. They gas them, so their flavor is completely different when allowed to grow to ripeness. It tastes like a different food.

Looking out over the 20 year old blueberries and laden fruit trees, the slow dancing multiplier onions and sweet corn, it's hard to imagine how rough-shod this land was when they got here. The place was so worn out by sharecropping and tobacco that there were places where weeds wouldn't even grow. The creek snaked throughout the whole bottom. The first thing they did was hire a bulldozer to reroute the creek so they could have some dependable drainage. This still can't keep the water from rising up the hill and wiping things out from time to time, their sweet corn has fallen victim to high water before. So much has been put into the soils to undo decades of mistreatment. Neil asked the old guy who lived here before when the last time was that the fellow had put lime down. His reply was "If God woulda wanted lime in that ground, God woulda put lime on that ground." Any time you harvest a plant and remove it from the field, it removes nutrients that would otherwise be returning to the soil system. The job of the farmer is to be a patron to and steward of the soil. Without this sense of generosity and attentiveness, your soil is going to wilt to dirt and your foliage will likely follow suit. Denise and Neil are well aware of this and have put somewhere in the neighborhood of 200 tons of lime down over the years. With the loss of farm infrastructure, it's getting tougher and tougher to bring in truckloads of soil amendments.

That's no to say that the Hoffman farm doesn't shy away from using chemicals when they deem it appropriate. They came out and built their farm and home in time and place in American history where many things were built well before their time. There was no locavore culture when they started growing fresh, local produce. There weren't thousands of natural foods markets, or tens of thousands of Lifestyle of Health and Sustainability enthusiasts. Naturally then, they don't subscribe to every tenet of the lifestyle. One thing that Neil believes is that the Organic foods movement can be just as wasteful of resources and just as inattentive to the land as some conventional farmers. He recalls one time when a climber came to visit his table at the farmer's market. One of only three times or so in his career farming in East Kentucky, the climber asked if his produce was organic. Playing dumb, he asked

“What is organic?”

“Organic is where you don't use chemicals.”

Neil remembers going to a symposium at Smith College. There was this overwhelming stench permeating the air. The dairy farmer he asked told him that the orchard nearby was completely doused every week with sulfur. He finds the organic foods movement to be anti-scientific, likening them to vaccine deniers. He mentions that though there are noxious synthetics, there are others that are chemical analogs to naturally occurring compounds.

The area has changed so much since the end of the tobacco allotment program. People used to be quick to buy the land around Owsley County to obtain the tobacco base money. One wouldn't necessarily have to produce tobacco, they could sell their allotments to area farmers. Now, the primary purchasers are people from the city who buy the land for recreation: Four wheeling, hunting, gun ranges. Neil mentions that it's easier to sell land not fit for farming than it is to sell farmland.

With the end of the tobacco allotment moneys, much of the supporting agricultural infrastructure disappeared. The farm store, the tractor dealership, so many assets disappeared. With the end of tobacco allotments and the downscaling of coal production, there is an employment and commerce vacuum in Eastern Kentucky. The biggest employer in Owsley county is the school system. In each county in the area, it is always the county jail, the school system, or the hospital that brings the most jobs to the area. Fast food chains are even conspicuously absent.

Despite the jobs vacuum, it has been very difficult for Neil or Denise to find good workers. This is what they attribute to their inability to scale up and build a truly profitable farming enterprise. Most of the money they bring in actually comes from Denise's off-farm job preparing taxes. The Hoffmans have gone through a number of channels to find new workers from going straight to school agriculture programs, to asking everybody and their mother via word of mouth. The best people they ever could find were older women. They went through a long line of young people who would make it just a few hours into the work day before getting sick or passing out, stepping all over the berries, or going through the whole field and only picking a couple of bushels. Young people aren't very strong anymore. In an area like this, Neil and Denise remind us that there have been multiple generations of people on the welfare dole. Generations ago, hill folk would work to grow much of what they ate. There is still a preponderance of small food gardens, but recent generations have been disjointed from the land. Hot Pockets is a slur that is used to refer to young Appalachians coming to the farmers markets. They don't cook very often and don't know how to cook fresh foods. It's a soda pop and heat-and-serve food culture there, despite the wide availability of bonus food vouchers for buying fresh produce. Because of this, Neil and Denise have been sure to grow foods that are familiar and easy to

prepare; fruit, tomatoes, sweet corn, green beans. Things that can just be eaten raw if need be.

When asked why there is so much poverty and bad health in an area where farmers are so resilient, Neil pointed to bad food choices among poor folks. Young people don't seem to cook, save for a small group of educated people who care about their health who take the time and effort to cook food. Denise also attributes a few other things to such poor health outcomes- a fatalistic attitude where people are too disempowered to take any action to change things for themselves. She tells stories of people who have diabetes and will talk about having it and not being allowed to drink soda or eat red meats but still having their carts packed with it anyway. She believes that sometimes the people just accept it as their unavoidable destiny to have diabetes, heart disease, or high blood pressure. Another hypothesis is genetics. She says many people wouldn't want to hear it, but there have been so many generations of the same people living in the area that they are all related in multiple ways and that gives congenital defects a much higher chance of appearing.

There would be no local food production without government programs- senior citizen vouchers, food stamps, and WIC vouchers. There are usually just two vendors, including the Hoffman Farm, in the Beautyville market. Other growers are sporadic in attendance. The level of cash transactions has declined over the years. Counties like Owsley are highly dependent on voucher programs. There's little enforcement on voucher programs, so a number of marketers are abusing the system. "Without the vouchers, there would be no local foods here, period." Neil has seen the broad base decline over the year. In the winter, he'd be looking over obituaries in the paper, saying "There goes that customer, there goes that customer." Most of their customers are either senior citizens or WIC recipients.

One of the biggest hurdles is to get kids in the area to enjoy local produce. There was a big problem of kids throwing away healthy foods when Kentucky schools started farm to school programs. The kids would rather pitch the wheat bread and other healthy options and go hungry. Owsley county school in Denise's opinion, is the exception, the kids eat the fruits and veggies. Part of that may be due to the fact that students have a hand in producing the produce at the school farm. There has been a generation that didn't learn to preserve food and farm. When the kids actually have a hand in cultivating the food or belong to families who grow a lot of their own food, they seem to be more interested in eating fruits and vegetables.

Finding a dependable workforce is a perennial problem still. One of the biggest commercial ventures that Hoffman farms embarked on would still be functioning if there was an educated farmer base. Over 15 years ago, they knew a man named Colonel Little. Colonel Little was a WWII pilot who adopted a Korean family and moved them to Beautyville. They figured out how to grow Napa Cabbage, Daikon, and Bok Choy to market to Lexington to sell in the Asian markets. They tried in the spring, but realized that it would do best in the fall. Some other farmers Philip Combs and Joe Greggs learned how to do it on a larger scale, were marketing to Georgia. The Hoffmans bought 100 acres of riverside land and were in production for ten years or so. Neil and a partner would run a distribution route of fall vegetables to marketplaces in Richmond, Lexington, and Winchester. It has to be grown in sandy ground, since they had to be germinated in July. Any clay heavy soil would harden and bake the starts. On that riverside land, they had the perfect conditions to grow. They are still getting calls years later about getting cabbage. Every Chinese restaurant that they would approach with Napa cabbage ended up being a client. They'd take 100 40 pound boxes out on the route and would sell it all.

As with many crops, area farmers who were accustomed to growing tobacco would fail to process them properly. They'd cover the crop, which would compress and stunt it because they were so accustomed to covering their tobacco. The Hoffmans never saw much competition with strawberries for many of

the same reasons. Farmers aren't willing to invest the 14 months necessary to get a crop off, so they would opt for other more traditional crops. Later, when we were standing in the old tobacco barn, Neil would tell us Took about four or five years from the end of the tobacco allotment program for people to transition to selling specialty vegetables. With so many people gardening for their own private consumption, and so many people switching to vegetable cultivation without any specialization, the Hoffmans felt like they were "trying to sell ice to the eskimos" with conventional produce such as squash and tomatoes. They had grown Shittake mushrooms for a spell. Denise believes that the best thing to grow in Eastern Kentucky are high value specialty crops. They believe that coupled with smart crop choices, the best way to ensure resilience of CSAs would be to market to city centers or town in areas where there are professionals who have some sort of health consciousness.

After having a fresh cup of coffee and polishing off the bowl of strawberries, we went up to the house, which even upon first glance was remarkable. They have city water but use solar heat for the water tank. The array is visible at the back of the house. It's so strong though that they have to cover a portion of it to keep from overheating the whole system in the warmer months. They cut the logs and did the stonework themselves. We walked into the side door into the kitchen. They still cook on a wood stove and they have two taps in kitchen counter. One for well water access, and one for city water access. They have a centrally located fireplace that they only really use when it is extremely cold. Otherwise, they use a little barrel heater.

It's a classic little log cabin, with really smooth, vibrant chinking and very masterfully milled logs. Their bedroom now is an addition. They used to sleep in the loft on the second floor but realized they were getting older. There is a good fusion of young and old in the bedroom, when they sheetrocked it in, they didn't simply plank it out and sheathe the whole thing. They let the beautiful old beams protrude. This is the third place that the beams have been used. They were in a tobacco barn, and previously in an old houseplace. The mill-marks recall an old era where people would buck lumber largely by hand. There are marks all over some of the beams where you can see that they were hand-hewn. The house is telling of their business philosophies. They've made it so far because they never racked up debt, everything was paid cash on account. With no mortgage payments and no equipment loan payment overhead, they are able to function much more comfortably than many small farmers.

They walked us behind the house to a little hill, where there was a little hut holding a few more goats that they needed to let out for grazing. It used to be a hog lot, and the little annex that was built there was originally used for farrowing hogs. He had 100-125 pigs a year, but again, the rise of mass processing and factory farms made it hard to do feeder pigs without stringent contracts. The mid level livestock dealers disappeared. He had loved raising hogs, his father had loved raising hogs as well as his grandfather, but as he said "You can be a good buggy-whip maker when the automobile came in, and it wouldn't make a difference, would it?" Neil made his way into the gate and let out a majestic nubian goat mother. She had to be separated from the rest because she got pregnant with a huge litter of five babies and most died before birth. As serene as she appeared, one would never guess that she also had to be separated because of attitude problems with the other goats. She wouldn't allow any other goats into the barn when she was in certain moods.

The Hoffmans share a respect for the natural world and natural systems. We made our way along the flower dappled treeline to another pen full of baby goats, just old enough to be off of the teat. As we neared, Neil pointed out Jack-in-the-Pulpit and other indigenous herbs. They make sure not to mow the wildflowers until they are able to go to seed. The baby goats are so precocious and full of energy. The one that had become accustomed to being bottle fed by Neil and Denise stopped as the others bounced along, looking at Neil with little strange goat eyes full of anticipation.

We started talking hogs again. Their hog fields were very minimally secured. Hogs don't jump- so he only ran a single, knee-height strand of wire. Says he's never had any difficulty with losing pigs. One way to make sure is to keep them confined in a small pen with one wire at about nose height to train the piglets to be wary of the wire.

We came around and the livestock and on the left was an what used to be old house on the lot, they removed all of the old materials and turned it into an equipment shed, which housed their trailer and their fifty-year old bailer “Keep your fingers crossed.” He reminded us. The bailer was still ticking away but the thing looked like it could either go ticking on forever or break down with the very next use. It was a simply built unit, before the days of manufactured obsolescence...but it sure was time worn. They used to have little work ponies, the same breed as what was once used to pull coal carts out of caves, they originated in England. They used the oldest methods to establish the farm, and true to their methods, they bought their first tractor with money from bell peppers, when one year they pulled ten tons.

The field adjoining the shed was pretty nondescript but full of potential beauty. They had gotten conservation grant money to plant native wildflowers and plants friendly to area pollinators. Without healthy pollinators, a farmer isn't going to see a very healthy yield. They've kept a diary every day for the last forty one years, so they can look back over the years and accurately track how their farm did. They can track the weather and the prices and their impressions. It is one of the reasons that they carry themselves with such confidence.

We made our way back around to the house and Neil dropped a bucket down the well and we refreshed ourselves with a large ladle full of sweet well water. As we resettled in our chairs we asked them about why the Kentucky Mountain Farms cooperative, a coop comprised of some 200 area farmers with a processing center failed. The largest thing was bad weather for the crops they were growing. The pickle company folded shortly after the development of the cooperative, so many of the “ugly” veggies that could have been value added had to just be culled. There was also machinery that was simply above their capacity to operate. The giant veggie processing equipment took some 30 people to operate at any given time. With the scale of production they were working on, it was too much. However, when the operation folded and Neal was left with the duty of getting out of debt, they were able to sell it for about what they bought it for and evened out the ledger.

They had soldiered on and worked towards organizing a sustainable food system for decades. One of the biggest obstacles were what Neil called the “Alls ya do” crowd. Alls ya do. “That was from my father. You'd tell him 'this guy's gonna do this'. His father would say 'yeah, yeah, aaallls ya do, build you a big hog lot, yeah yeah you'll see.” “Three years later, it was belly up.” with small farmers, interest rates make it to where small farmers are working for the bank. They had seen people come through and borrow money at ten percent interest. Mink farms, ostrich farms, confined sow operation, everybody going bankrupt without the supporting markets and logistics.

They look forward to the influx of Amish settlers to the area. Another group of people renowned for their hard work, social connectedness but functional autonomy, and smart business sense. They believe that the rolling hills of nearby Jackson county might see some sort of rural renaissance.

When asked about who their farm would be going to, who would carry the torch, they were a bit taken aback by the question. They hadn't really considered it going any further. Their daughter had gone to college and grad school, and true to form had graduated with no debt. They do have a little grandson though who is obsessed with tractors. There were little spots in the yard where he would park his bike that people are dissuaded from treading, it being his hay field. He always refers to his bike as his tractor. It was a John Deere until Grandpa Neil got a Kubota. So now it's his faithful little Kubota. Though Neil and Denise claim to be calling it all quits, there's too much of a glint in their eyes and a fire in their belly to not be out there working on organizing something new.

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They milked nubians for 25 years and had a feeder pig operation. They'd feed little piglets with excess goat milk because sometimes the sows wouldn't produce enough.

They started a meat goat operation with Boer goats, organizing a meat goat association of some 25 farmers. The Boer goats were horrible mothers, however, and would leave their young in the woods and be completely unaware that anything happened. They're thinking of crossing a Boer/billy. Their Kikos are so high energy that they wanna try to cross them back to calm them down a bit.

They've had a lot of rain, so it's been difficult to get the hay baled up in time.

Last july, it rained 9 inches, the same as what it rained in july in the first july that they started the producer cooperative in 1984.

They don't believe you can successfully grow commercial vegetables in Eastern Kentucky simply on the grounds that it's too wet. The peppers they tried to grow with the cooperative would be completely drenched.

500-600 gallons of strawberries. They never had to peddle them, people would come to the driveway to pick them up. They've had to slow down because they are getting older and can't find good help in the county.

They're not going to the farmer's market for the first time in 23 years.

They brought us around and showed us their tater onion, or multiplier onion. Onions are planted in the fall and multiply like crazy around the original.

They're down to fifty strawberries. 3-4 k in less than an acre.

They had to put up an electric fence after they went camping one October to find that their strawberry crop was mowed down. Their dog decided to guard the neighbor's house. (Dar select) is the breed they favor. It has really dependable yields and seem to produce over a longer period of time than most other strawberry varieties. They lost 30-40 gallons to rain this season.

Electric fence is also used around their sweet corn to protect from the coons and coyotes.

“The difference between a good farmer and a bad farmer is two weeks.”

The place was so worn out by sharecropping and tobacco that there were places where weeds wouldn't even grow. The creek snaked throughout the whole bottom. The first thing they did was hire a bulldozer to reroute the creek so they could have a

Took a lot of lime to remediate the soil. He asked the old guy who lived here before when the last time was that he put lime down. The fellow said “If God woulda wanted lime in that ground, God woulda put lime on that ground. Bought some 200 tonnes.

They lost so much farming infrastructure with the end of the tobacco program. They lost the farm store, tractor dealership, everything. Biggest employer school system.

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They picked 136 gallons one time and couldn't market it all, so they went to the Hazard farmers market and were practically mobbed- not many people grow strawberries.

Aren't any restaurants in the area to market to except for a pizza place at Natural Bridge called “Miguel's”. They usually need serious volume, the place is so popular. People come from all around the world to climb there, so the pizza spot gets plenty of traffic.



One thing they did try that was very successful. Over 15 years ago, Colonel Little was a WWII pilot who adopted a Korean family and moved them to Beatyville. They figured out how to grow Napa Cabbage, Daikon, and Bok Choy to market to Lexington. They tried in the spring, but realized that it would do best in the fall. Philip Combs and Joe Greggs learned how to do it on a larger scale, were marketing to Georgia. They did that for ten years or so, they did that and quit. He and a partner Richmond, Lexington, Winchester. It has to be grown in sandy ground, since you are germinating in July. They got some riverside land to grow. They are still getting calls years later about getting cabbage. Every Chinese restaurant that they went to to sell ended up being a client. They'd take 100 40 pound boxes out on the route and would sell it all. They had to stop due to lack of help.

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Though land was cheap in the past around Owsley county, people would be really quick to buy it to obtain the tobacco base money. Now, the primary real estate purchasers are people who live in the cities or out of the area who buy it to ride four wheelers. Recreation, shooting guns, hunting grounds. They can sell land not fit for farming more easily than they can sell farmland.

They now own 320 acres of land. There's a 100 acre plot they bought for 20,000.

They have a daughter who has a couple of grandkids. Their 3-year-old is obsessed with tractors and hay. He called his little bicycle a John Deere until his grandpa got a Kubota, so naturally it's a Kubota now.

Commercial vegg bell peppers Campbell soup, cucumbers for paramount- a pickle company out of Louisville, and farmer's market for 23 years. There would be no local food production without government programs- senior citizen vouchers and WIC vouchers. Two vendors for Beatyville made up most of the market. The level of cash transactions has declined over the years. Counties like Owsley are highly dependent on voucher programs. A lot of the other vendors use chemicals. There's little enforcement on voucher programs, so a number of marketers are abusing the system. "Without the vouchers, there would be no local foods here, period." He has seen the broad base decline over the year. In the winter, he'd be looking over obituaries in the paper, saying "There goes that customer, there goes that customer." Senior citizens make up the bulk of market consumers, and there is very little interest into whether the crops are organic or not. In the 23 years of vending at farmers markets, Neil can only think of maybe three times where a customer asked whether or not his crops were organic.

One climber that came asked. He, playing dumb, asked the client "What is organic." "Organic is where you don't use chemicals." He recounts going to a symposium and smelling a horrendous stench. He asked what it was at a symposium at Smith College. The dairy farmer he asked about told him that they doused their orchards every week with sulphur. He likens it to vaccine deniers, where educated people use very unscientific reasons for sticking to organic farming.

Neil attributes much of the health problems in the population to poor diet. Denise believes it's also genetics, lots of people who have lived in the same area for generations upon generations, 200 years. Many of whom are related. Without genetic variety, they believe that there are many congenital illnesses.

Another problem is the fatalistic attitude. They don't change their habits or lifestyle even when diagnosed with diabetes.

They never made much money on the farm because of inability to find workers. Most of their money comes from Denise's off-farm work. They've gone through the school ag programs, word of mouth, and other venues. The best people they could find were older women. When they would bring young people, they would make it maybe a couple of hours before getting sick or passing out, stepping on berries, or not harvesting everything there. They come from multiple generations of people on the dole.

Denise came from the house with a bowl full of strawberries. Very small, firm, not overly sweet. Denise says that they couldn't be sweeter because of the immense amount of rain.

They do a new patch every year, because after the initial grow year, yields drop precipitously. Broccoli and fall cabbage are the crops that they usually rotate into beds that they later grow strawberries in.

We spoke a bit about how many people haven't had the opportunity to eat real fruit. Most commercial storebought strawberries and tomatoes are picked green, before they are able to contain vitamins and lycopene of any significant amount. They gas them, so their flavor is completely different when allowed to grow to ripeness.

They haven't had much luck growing tomatoes, because they have many many blight problems.

They believe that the best way to ensure resilience of CSA's, you would need to market to city centers or town in areas where there are professionals who have some sort of health consciousness.

They have city water but use solar heat for the water tank. It's so strong though that they have to cover a portion of it to keep from overheating the whole system.

They cut the logs and did the stonework themselves. They still cook on a wood stove and they have two taps in the kitchen. One for well water access, and one for city water access. They have a centrally located fireplace that they only really use when it is extremely cold. Otherwise, they use a little barrel heater. It's a classic little log cabin, with really smooth, vibrant chinking and very masterfully milled logs. Their bedroom now is an addition, and when they sheetrocked it in, they let the beams protrude. This is the third place that the beams have been used. They were in a tobacco barn, and previously in an old houseplace. The mill-marks recall an old era where people would buck lumber largely by hand. There are marks all over some of the beams where you can see that they were hand-hewn.

Every year, they clean out the well and test it to be sure they're drinking potable water.

One of the ways they were able to make it was not having mortgage payments to make.

They walked us behind the house to a little hill, where there was a little hut holding a few more goats that they needed to let out for grazing. It used to be a hog lot, so the little annex that was built there was originally used for farrowing hogs. He had 100-125 pigs a year, but when the corporations such as Tyson came in, it became impossible for small pig farmers to make a serious living.

However, goats still sell for good prices. Neil and Denise have raised goats for 44 years. He released an absolutely beautiful mama goat. She had 5 big goats in her, they were all dead. Neil had to pull three out before she could pass the others. They're debating on whether or not to keep her because she's so bossy and wouldn't allow many other goats into the barn if she had them put up with the others.

We walked into the black tobacco barn, still full of tobacco staves and outfitted with the cross-beams. They grew tobacco on contract two years after the tobacco program ended.

The last crop they did commercially is fall cabbage.

He had two acres of it for quite a long time.

When everybody quit the producer cooperative, he was the one responsible with liquidating all of the equipment to be able to pay off all of the old debt. Weather problems was the biggest contributing factor to the demise of the cooperative.

They also sell hay, about \$1,000 a year. Not a lot, but a decent little supplement to their income.

They have a high respect for natural plant life, they make sure not to mow the wildflowers until they are able to go to seed. We made our way along the flower/dappled treeline to a pen full of baby goats, just old enough to be off the teat. They are so precocious and full of energy. Hopping along and eyeing us as we walk past. The mulberries and raspberries were coming to full bloom.

Goat prices are through the roof- recently at \$3 a pound selling them on the hoof at auction. The six month olds regularly pull \$2.50 a pound. They grew tobacco, cucumbers, and other crops in this little goat lot in the past.

About the tenth of June, you sew your fall cabbage crop in Kentucky.

They would fence in areas for the goats and hogs to help clear out weeds. There were vines and perennial crops that tillers aren't very effective at removing that the hogs would dig up without a problem. They used hogs and goats

Hogs don't jump- so he only runs a single, knee-height strand of wire. Says he's never had any difficulty with losing pigs. One way to make sure is to keep them confined in a small pen with one wire at about nose height to train the piglets to be wary of the wire.

We came around and on the left- this was an old house on the lot, they removed all of the old materials and turned it into an equipment shed, which housed their trailer and their fifty-year old bailer "Keep your fingers crossed."

They have planted the pasture next to the barn with a mix of native grasses and flowers with some government program to restore pollinator habitats.

They have had sweet corn destroyed in floods.

The main tax preparer in the county has recently died, so instead of retiring, she's tripled her client base- so she is trying to recruit somebody else to take over the work for her.

Little goat pulls itself apart from the herd as we walk through. "That's the one I fed with the bottle:

“that's the bottle baby, see how it acts different?”

about pigs: Corporate people moved in changed industry feeder pig company one hundred miles from his door in montecello graded them and shipped them to iowa, illinois. The midlevel tyson owns a third, murphy philly farms, conagra- all contract. All the farmers do is feed them. The midlevel dealers disappeared. He had loved raising hogs, his father had loved raising hogs as well as his grandfather, but as he said “You can be a good buggy-whip maker when the automobile came in, and it wouldn't make a difference, would it?”

## LOOK UP JACK IN THE PULPIT

Amish are moving into the area, they seem pretty excited about having them out because of their work ethic and enterprising nation.

The same goes for dairy operations. They have lots of seven thousand now where workers are milking cows twenty-four hours a day.

We talked about milking goats and cows for a bit. Suggestions on training. Be persistent, don't hurt her when you're milking her.

Reapproached the house, saw the old blueberries which in spite of their rough root condition, were fairly loaded with blueberries. Not half as much of a yield as they used to.

They used to have little work ponys, the same breed as what was once used to pull coal carts out of caves, they originated in England.

Bought his first tractor with money from bell peppers. Pulled ten tonnes off of an acre.

Alls ya do crowd. Alls ya do. “that was from my father. You'd tell him 'this guy's gonna do this'. His father would say 'yeah, yeah, aaals ya do, build you a big hog lot, yeah yeah you'll see.’’ “Three years later, it was belly up.” with small farmers, interest rates make it to where small farmers are working for the bank. They had seen people come through and borrow money at ten percent interest. Mink farms, ostrich farms, confined sow things, everybody going bankrupt. They never borrowed money.

Big fan of buying things on account. All of their vehicles were bought with cash, except for the latest car, which they financed despite having the money to buy it, just to improve their credit score. They had been given a twelve hundred dollar incentive to lure them into financing.

They see things being better for young farmers now, they feel as if maybe they had just been a little bit early to catch the local foods trend.

So many of the back to the landers who came out to homestead fell through the cracks. Neil and Denise can only think of one other back to the land family that was able to stay operational.

They were worried that if people saw them making so much money on strawberries, that people would hop on the train and put them out of business...but since it takes fourteen months to make a penny, so many people are hesitant to do so.

They don't think that their daughter will take on farming because of her work in academia. "It'll be over when we are done, and we're windin' it down, buddy!"

Eighty tomato plants, half acre of sweet corn was their usual yield. They'd load down their truck and spend four days out of the week to prep and attend farmers markets, but they's usually only pull four to five hundred dollars a week for only four months out of the year.

They've kept a diary every day for the last forty one years, so they can look back over the years and accurately track how their farm did.

They learned to raise stuff for people that had the vouchers that didn't really know how to cook, such as sweet corn and tomatoes.

Young people don't seem to cook, save for a small group of educated people who care about their health who take the time and effort to cook food.

One of the biggest hurdles is to get kids in the area to enjoy local produce. There was a big problem of kids throwing away healthy foods when the school started farm to school programs. The kids would rather pitch the wheat bread and other healthy options and go hungry.

When the kids actually have a hand in cultivating the food or belong to families who grow a lot of their own food, they seem to be more interested in eating fruits and vegetables.

Owsley county in their opinion, is the exception, the kids eat the fruits and veggies.

Kentucky mountain farms coop-

The first year, each farmer put up about one hundred dollars an acre for each acre they were going to be producing on. There was a pretty sizeable participation and they were able to finance the construction of the facilities. They went to meeting upon meeting before production even started, making county level meetings with prospective farmers.

It was always undercapitalized. There was federal, state, NGO, and local farmers money adding up to about three hundred thousand dollars.

There was a cannery in Owsley county in nineteen fifteen. "In two hundred years, you can do a lot fo experimenting. There is nothing, nothing that you can produce on a commercial scale, and the reason is the weather."

One of the problems was that some of the leadership tried to go to too large a scale, buying a processing machine that took thirty people to run it. They had 300 acres of vegetables coming through. They had eleven and a half inches of rain in the first five weeks of farm production in their first year. There were truckloads and truckloads of blemished produce that were rejected because of moisture.

With climate change, Eastern Kentucky is just getting wetter and wetter with bigger torrential rains. This makes it very difficult to grow traditional produce.

Too much debt, ignorant farmers, farmers who were accustomed to growing tobacco- which is a fairly simple crop to grow in comparison to other crops. So many of the farmers were used to that.. so for example, when they were starting cabbage, they would put the cover over the cabbage and wouldn't keep the soil moist. The soil would harden and the cabbage would fail. '

If they had done cabbage, broccoli, and cauliflower they believed that the cooperative would have fared much better.

The cooperative ended with a substantial amount of debt, Neil hired people to Disassemble the veggie processing machinery and ship it to a buyer who was starting a processing operation.

Deer had been wiped out, so the state imported deer to Kentucky. The population skyrockets and damages farmland, breaking fences, eating crops. There are so many people having difficulty growing gardens because of wildlife pressure. It's an excellent source of revenue for the state, but feels like a tax on the farmers.