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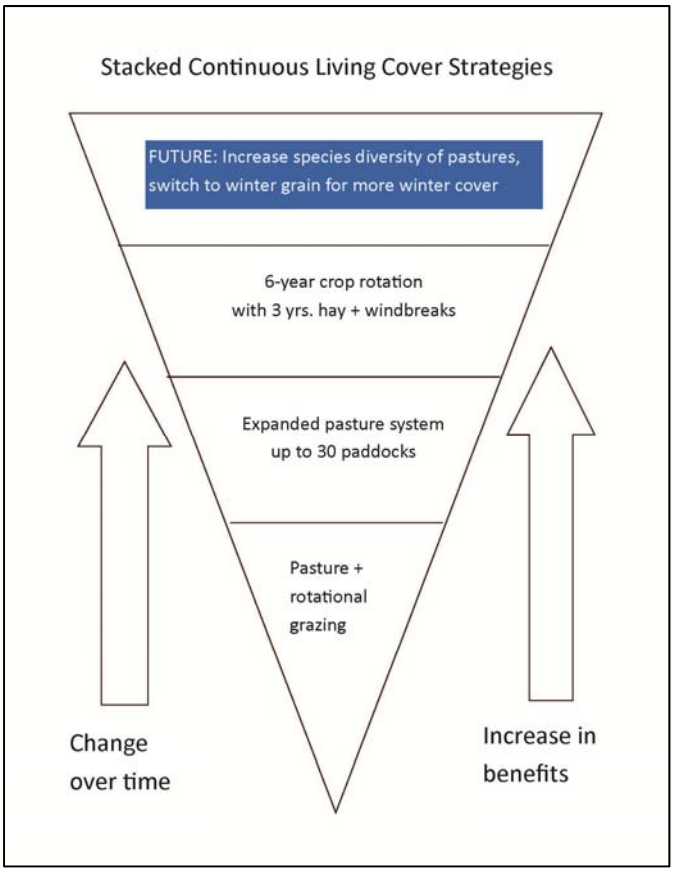
Continuous Living Cover Series

Pastures A'Plenty Farm
Jim and LeeAnn VanDerPol
Josh and Cindy VanDerPol

Clara City, MN; July 21, 2014



Farm History

The VanDerPols have 320 acres, with about 100 of those in permanent grass/legume forage. The farm is low and wet as a whole, especially the area that fronts the road. They were originally a conventional corn and soybean farm, and there was always a problem with getting equipment stuck in certain fields, so those were the first to go into a permanent perennial forage. The pastured area grew in pieces from the early 1990s through 2004. It was driven originally by a small flock of 4-H and FFA sheep, and was expanded as that flock grew to 160 ewes by 1996. A farrow-to-finish hog operation was a large part of the farm, and Jim started putting gestating sows out to graze.

The VanDerPols changed their operation in 1999 and started raising dairy replacement heifers for Cedar Summit Dairy, an organic grass-based dairy in New Prague, MN. The need to have organic feed for those heifers spurred the VanDerPols to get organic certification for their farm. They transitioned the fields to organic status a piece at a time, beginning in 2002 and completing the process in 2007. Raising dairy heifers lasted from 1999 to 2013,

when the Cedar Summit Dairy changed its operations. The farm had built up a beef herd during the dairy heifer years, so grass-fed beef is now the main focus of the grazing portion of the farm. Jim estimates that the herd still needs to grow by about 25% to fully stock the pastures. Jim and LeeAnn, their son Josh, and his wife Cindy are all fully employed by the farm operation. Josh and Cindy's three children – two high-school student and a college student -- are employed part-time.

Agroforestry

Having trees on this farm is difficult. It is a prairie area, and a limited number of tree species work with his soil. Nut, fruit, and high-value trees don't do well. Jim recognizes the value of windbreaks, but laments just a bit that he has to settle for value, but no cash crop from the agroforestry plantings. Wind erosion is clearly a problem that they have seen, though, and windbreaks help address it. They also want windbreaks to be able to expand the areas where they can overwinter cattle. A windbreak planting of cedar, ash, and red osier dogwood to the north of the buildings has now grown up enough that they can winter cattle on the north side of the farm.

Six-Year Crop Rotation and Cover Crops

The remainder of the farm, 200 acres, is in a six-year rotation with some variation due to weather: hay – hay – hay – corn – small grain – corn. About 90 of the 200 cropped acres is in hay at any given time. The hay is a mixture of about 60% legumes (alfalfa and red clover) and 40% grasses (tall fescue and orchardgrass). When they were transitioning the farm to organic status, the six-year rotation made it very easy: three years of hay satisfied the organic transition period, so they simply certified each field as it came out of hay. They use hog manure as fertilizer, and underseed the small grain crop with a cover crop (red clover under oats in 2014). They have not yet figured out how to use cover crops with corn. Yields of organic corn have ranged from 140 to 170 bu/ac, compared to neighbors' 200 bushels, but Jim notes that his input costs are much lower. He is using no purchased N fertilizer; hog manure and the preceding hay crop or green manure cover crop are taking care of the N requirement.

> Each of the six fields in the rotation is close to 30 acres in size. Jim acknowledges that this is much smaller than the field size many farmers in his area deal with, but believes there is a beneficial result of a smaller field size – wind erosion is less from a smaller field.

The main cause of lower yields in the organic corn is weed pressure. Over the past few wet springs, they haven't been able to do mechanical weed control in a timely fashion. They are planning a change from spring grain to winter grain. The main driver of that change is because they can't get the spring grain planted early enough and are seeing too many weeds; but control of wind erosion is another reason. Jim says, "If we can make winter grain work, plus the 90 acres of hay, we will have 120 acres [out of 200] covered over winter."

Grazing and Hay

Forages are essential for the beef cattle but very useful in the farm's hog operation as well. The three years of hay in rotation on the crop fields supplies enough hay to winter the cattle and feed the hogs. They use hay in their grower/finisher ration, and hay is also a signification percentage of the sows' winter ration.

Jim uses a planned rotational grazing system with 30 paddocks for the cattle, currently 50 youngstock. He hasn't used a very heavy stocking rate, and he matches the rate of cattle movement to the condition of the pasture, with a goal of grazing a 7" to 14" sward. The cattle take half and leave half of the available forage. When bare spots showed up in some pastures in 2011 and 2012, he slowed down the rotation and let pasture plants go to seed. Heavier grazing in early spring is helping to get more grasses into the pastures. Jim also has a 15-year plan with the paddocks: he tries to give two out of the 30 paddocks an extended rest period every year, delaying the first graze until August. The two paddocks thus treated change every year.

The pastures are never tilled but get occasional reseeding. This is done either via frost-seeding or by spinning on clover seed just ahead of the cattle during a rainy spell, and keeping the cattle on the pasture just a bit longer than usual. They have seen good clover establishment with either method. Jim strives for plant diversity in the pastures. He wants to keep an alfalfa component because of its deep taproot, and is trying altered grazing schedules to get birdsfoot trefoil to reseed itself. Pastures get a topdress of manure every 5 to 6 years. This is solid manure; they use the residue from their own crops as bedding for pigs and cattle and build up a pack that is periodically removed, composted, and applied to fields.

The farm's 90 head of sows are on pasture when pasture is available. The pasture fences are set up so that the cattle are rotated and confined to one paddock at a time, but the sows can go wherever they want within the whole pasture. The sows are housed in a building a short distance from the pasture area, and walk down a lane to access the pasture.

The sows perform multiple duties on pasture. They harvest some of their own feed. They break up cow patties and spread the manure around, which helps reduce fly pressure. They also allow Jim to use a fairly high percentage of legumes in his pasture with reduced risk of bloat in the cattle. Early in their pasturing days, they did see some problems with bloat because they were converting hayfields with a high percentage of legumes into pastures. Now, the sows preferentially graze the succulent tops of alfalfa and clover; and that plus the grasses in the mix has greatly reduced the incidence of bloat.

Jim's sister Terry's brood cows spend the winter at his farm. There is perimeter fence around the entire farm, and in winter the cattle can range all over and graze crop residue.

Marketing

The beef cattle and hogs supply the Pastures A'Plenty meat business. Beef and pork is marketed directly to individual customers, and also wholesaled to grocery stores, food co-ops, and restaurants in the Twin Cities Metro Area primarily. Although the farm fields are certified organic, the livestock are not. VanDerPols sell their organic corn for the organic price premium and buy back non-GMO corn to feed the hogs. They have a group of farmers who raise non-GMO corn for them, and a cooperative arrangement with the consolidated elevator business in the area to rent bins and get custom feed mixes blended at a local, decommissioned feed mill.

Resilience

The pastures handle weather extremes that row crops can't. Jim points out a drowned-out portion of a neighbor's cornfield adjacent to his pasture. On the Pastures A'Plenty side of the property line, that low ground is in reed canarygrass, which handles wet conditions very well.

The strong emphasis on perennial forages, the integration of crops with livestock, and the marketing of those livestock contributes to the stability and profitability of the whole farm operation, and its ability to fully support two families on 320 acres.

> "This 320-acre farm keeps four adults and three teenagers very busy. The livestock are the reason - you couldn't support that many employees with a grain farm of this size. Livestock need to be integrated with grain. Our markets allow us to do what we do. The land is connected with livestock, and the livestock are connected with markets."
>
> - Jim VanDerPol