

Organic Hay is His Business

by Marisol Berti and Dwain Meyer, North Dakota State University

Lynn Brakke is an organic producer in the Red River Valley. His farm is located 20 miles south of Moorhead, MN. Lynn switched from conventional to organic farming in 1993. "I switched to organic because I could make more profit than with conventional crops," Lynn said. After a few years, he was told by old-timers who were into organic farming that he would need a sod crop to make the system work. Once he got alfalfa into the mix, things just started working better. He farms 2,400 acres of organic crops; one-third of them are alfalfa.

Lynn says, "Alfalfa is a great fit for organic farming. It releases nutrients, helps weed control, soil structure/health, and soil permeability - important for the Valley's heavy clay soils, and more." The down side is alfalfa is labor intensive and more work than other crops, even sugarbeets. In addition, when rotating crops it is difficult to kill alfalfa without herbicides, so Brakke must till the field many times.

Brakke's primary rotation includes blue corn (for blue corn chips), soybeans (food market soybeans, tofu, and natto), and alfalfa. He has a corn-soybean-alfalfa rotation which provides economic sustainability. He has grown other organic crops such as popcorn, sugarbeets, potatoes, and wheat, but currently is staying with the corn-soybean-alfalfa rotation.

Brakke grows alfalfa for 3 years which includes the seeding year. Alfalfa is planted with a nurse crop, usually oats. Normally, the oats are used for hay and are ready to be cut in late June at the boot stage. He generally gets at least 2 cuttings of alfalfa in the seeding year, in addition to the nurse crop. He uses organic alfalfa seed 'Tug of War' from an Idaho company, Saul Brand Seed, at ~20 lbs/ac. Seed prices for organic alfalfa are about the same as top-notch conventional varieties (~\$3-\$4/lb).

For grass-alfalfa mixtures, he uses 14 lbs/ac of alfalfa seed. Grasses included are usually perennial ryegrass, smooth brome, tall fescue, and orchardgrass. As alfalfa stands get older, orchardgrass seems to take over the field while fescue and perennial ryegrass tend to get thinner with stand age. During the 1st and 2nd year, Brakke cuts the alfalfa every 28 days on average and gets 4-5 cuts in a season. The last alfalfa cut is done right after the first killing frost. He typically does not see winterkill in the first 2 years, however, he does see some as alfalfa stands get older. When harvesting, Brakke leaves about 2" of stubble depending on soil wetness. Alfalfa yields are fairly consistent at ~4.1 tons/ac on dry land.

People tend to think organic producers do not use fertilizer, but Lynn does. Fertilizers are a big part of production costs. Soil test results indicate his soil has much higher fertility now than before he started organic production. He uses a lot of certified natural organic fertilizers, mined products (e.g. non-processed sulfur, phosphate, Cu, Zn, B, Mn, mined potash). The most limiting nutrients for alfalfa are phosphorus, calcium, and sulfur. Sulfur deficiency is a problem he just started to recognize. Most soil labs do not routinely test for sulfur and the soil test is not very accurate. Brakke also tests the soil for available Ca and, if low, applies gypsum in the fall, which is also the cheapest source of sulfur. Fertilizer application is very labor intensive. However, an advantage with alfalfa is that he can apply much of the fertilizer between cuttings, avoiding doing so in the fall or spring. The only problem with applying fertilizer between cuttings is the potential for wheel-traffic problems.

Weed pressure is generally not a problem for Brakke. Since switching to organic, he has not had problems with insects or diseases. He believes this is due to organic management which allows survival of beneficial insects and organisms. There are organic insecticides available, such as natural pyrethrins, which do not kill beneficial insects but still eradicate insect pests, but he has not needed to use them.

He cuts alfalfa with a 13' discbine with a conditioning unit that lays the windrows in 4-4.5' wide rows. Just prior to baling, 2 rows are merged into 1 for more efficient baling with a medium- sized large baler. He uses a retriever that follows the baler to pick up the bales, stacks them 6 high, and covers the bales with tarps. He is looking at bale wrapping to produce baleage or supply a supreme product, which he feeds to his 50 beef cows. Each day, bale samples are sent to the lab and tested for quality.

His organic alfalfa hay is currently selling for \$1.10 x RFV or RFQ/ton. Last year it was \$1.25 x RFV or RFQ/ton. Prices in organic hay have not changed as much this year as conventional hay. The consensus is that the economy is keeping organic hay prices low. Lower fuel prices might be a reason, but sometimes the market does not necessarily correlate to the cost of production.

Most of his customers, organic-dairies with 50-70 cows, prefer the grass-alfalfa mixture because it has greater digestibility. He also sells pure alfalfa hay bales. He markets his hay in medium square bales, mostly in Wisconsin (80%). The remaining production is marketed in Pennsylvania, Maine, and Vermont. He has tried some exports, but finds trucking costs to the coast prohibitive. He tries to deliver all his production himself. "A good and happy customer always comes back," Lynn says.

Brakke's entire operation is certified organic by an inspector. Organic certification requires an annual inspection, where the inspector verifies where all loads went and where they were stored, harvested, and sold. Inspectors also review all receipts for fertilizers and supplies. Certification cost is not high and is calculated as a percentage of sales, but the cost depends on the company doing the certification. In Minnesota, there is a cost share providing an incentive for producers to become organic. "The certification cost and process is not really a big deal," states Lynn. The standards come from the USDA, but are administered through different companies. In total, there are over 100 worldwide.

If you are interested in buying high-quality organic hay, call 218-585-4107 or send an e-mail to lbrakke@aol.com.