Double-Foraging: WI Dairyman Ensiled 3+ Tons/Ac

by Pete Hardin

(Note: On August 22, this writer was privileged to attend a seed dealers meeting featuring presentations from the Masters Choice and Byron Seeds firms, at the dairy farm of Kurvin Zimmerman, in southwest Wisconsin. During that gathering, one speaker noted, as an aside, that Zimmerman's crops would provide all his dairy livestock feed needs off his farm this year – off 86 tillable acres. Say *what*??? All the needs for 60 milk cows and additional young stock from the crops harvested from 86 acres… in the midst of the 2012 Drought? We had to go back and learn more!)

In late summer 2012, Kurvin Zimmerman is strategizing how to boost forage production from his 86 tillable acres for his 60 milk cows and young stock – for next year. Kurvin's not worried about 2012. Barring some unforeseen weather disaster, Zimmerman's 86 acres will produce all forage and feed needs for his dairy livestock during the devastating 2012 Drought.

Something is different at Kurvin Zimmerman's farm, located about 10 miles southwest of Montfort, Wisconsin (about two miles west of the Iowa/Grant County line). Zimmerman's land faced just about the same tough challenge from heat and drought in 2012 as did many dairy producers in that area. He readily acknowledges the blessing of a critical 2" rain on July 17 as a saving grace.

The secret to supplying all Zimmerman's dairy livestock's feed needs: intense double-cropping of forages. In mid-September 2011, Zimmerman planted a mixture of 75 lbs. of triticale and 25 lbs. of winter ryegrass per acre on 20 acres from which corn silage had just been chopped. To front-load nitrogen immediately prior to fall-planting of the triticale/winter ryegrass, Zimmerman disked into the soil a dose of liquid manure: 8,000-9,000 gallons per acre. Fall growth – an inch or two – didn't look like much, prior to the onset of cold weather. The triticale variety was 815 and the Italian rye grass was MO-1 varieties sold by Byron Seeds.

Come March 2012, Zimmerman added 100 units of nitrogen per acre, in the form of urea, to the greening triticale/ryegrass stand. While neighbors celebrated 2012's early, warm spring weather by planting corn early, Zimmerman watched his triticale/ryegrass stand grow thick and tall.

By May 15, Zimmerman had chopped and ensiled those 20 acres of triticale/ryegrass – which yielded more than 3 tons DM/acre of chopped green material (70% moisture). That 3+ tons DM per acre yield is an estimate, based upon the height of the ensiled material in the silo and length of time that material was fed to the livestock. Those 20 acres filled 40' of a 16' diameter conventional silo.

Green chop lasted until Labor Day weekend

That material supplied all the forage needs for all of Zimmerman's dairy animals – right up to Labor Day. This miserable, hot summer, as many dairy producers nervously fed out forage supplies intended for winter …Zimmerman didn't touch stored hay supplies. All summer forage needs for Zimmerman's dairy animals – roughly through Labor Day – came from the ensiled triticale/winter ryegrass. (Note: Zimmerman did buy some hay in the spring; he was nervous about weather conditions. But that stored hay remains untouched – an investment that's appreciated better than money in the bank!)

The green chop ensiled by May 15, 2012 tested out at the following nutritional measures:

Crude Protein – 20.1%
Acid Detergent Fiber – 35%
Neutral Detergent Fiber – 52.5%
Neutral Detergent Fiber Digestibility in 30 hours – 64(%)

Practical Hints on Triticale/Winter Ryegrass

From their experience so far, Kurvin Zimmerman and Tim Huffman have several observations for farmers intending to fall-plant triticale/winter ryegrass as a forage crop intended for mid-spring harvest.

Triticale and winter ryegrass require planting at different seed depths. According to Huffman, triticale should go into the soil at a depth of about two inches. But winter ryegrass seed must be planted at a depth of about one-quarter to one-half inch.

Kurvin believes that planting the triticale/winter ryegrass in September is better than waiting until later in October. Perhaps that fact should guide planting a slightly shorter-maturing corn silage variety.

When chopping the triticale/winter ryegrass forage in mid-spring, Kurvin Zimmerman recommends putting it in the silo at 66-68 % moisture. "Better a little too wet than too dry," he contends. When the moisture content is less than 65%, the ensiled material tends to be too fluffy – won't pack well in the silo – and is a bit more of a hassle to feed.

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Here's a heapin' handful of Triticale/winter ryegrass green chop that dairy farmer Kurvin Zimmerman ensiled by May 15, 2012: 3+ tons/acre.

That's just the beginning …

Whoa! A few more details need to be explained about the Kurvin Zimmerman's endeavors. Like many dairy farmers of a "Plain Faith," Kurvin has a side enterprise. In partnership with a local dairy nutritionist/seed salesman, Tim Huffman, Zimmerman co-owns Peak Forage Products, LLC – based at Zimmerman's farm.

Huffman – a veteran dairy nutrition consultant and seed salesman – operates a pair of businesses out of tiny Hollandale, Wisconsin: Peak Dairy Consulting, LLC and Peak Forage Products, LLC. Tim Huffman explains his basic philosophy: given present day costs for farmland (owned or rented), inputs (seed, fertilizer, fuel, etc.) and purchased forages/grain, producers must maximize their overall output, looking at every opportunity to boost production of their fields.

Huffman explains his perspective on double-cropping was expanded, years ago, when he spent a week with a friend and consulting veterinarian – Dr. David Byers (Galax, Virginia) – travelling in Southeast and Atlantic Coast states. On that trip, Huffman's eyes were opened wide to the efficiencies enjoyed by Southern dairy producers' triple-cropping practices. Those observations inspired Huffman towards some critical thinking: what double-cropping practices could northern states' dairy producers utilize?

Tim Huffman reports that dairy clients in Wisconsin have enjoyed exceptional success with fall-planted triticale/ryegrass. Those clients' success is turning neighbors' attention … particularly this year.

Planning numerous test plots for September planting

The most important lesson derived from visiting Kurvin Zimmerman's dairy farm this late summer: what Zimmerman and Huffman are researching for the future! Kervin and Tim don't just sell seeds for Masters Choice and Byron Seeds. This forward-thinking, inventive team is looking far, far ahead, analyzing ways to optimize overall forage productivity on northern U.S. livestock farms. (Note: Masters Choice and Byron Seeds supplied the seed for the test plots at Peak Forage Products, LLC site.)

Currently, most university "experts" are busy advising livestock farmers how to harvest and store drought-stressed corn and soybeans on a emergency basis. The inquisitive pair (Tim and Kurvin) at Peak Forage Products, LLC are conducting – on a small scale – double-forage cropping research that Land Grant university experts ought to be engaging!

Wide variety of fall 2012-planted test plots

Utilizing small test plots, Zimmerman and Huffman have designed more than two dozen forage production trials for fall 2012 plantings. These test plots primarily focus on variables involving triticale/winter ryegrass mixtures. Such variables in the fall 2012-planted test plots will include:

Different levels of seeds/acre, for both straight triticale and triticale/winter ryegrass combinations.
Different levels of incorporated manure per acre.
Planting cereal rye.
Planting straight ryegrass.
Planting a forage-type winter wheat (Progene 320A).
Varied planting depth of seeds.
Planting different varieties of triticale and winter wheat.

To boost the accuracy of their wide-ranging plans for these fall-planted forage test plots, Zimmerman and Huffman have just installed a scale to measure weights of all materials coming off test plots and the entire farm. No more guessing on weights. In addition to the weights, all samples will be rigorously tested for nutritional value.

Fall-planted forages spread out field work

Besides gaining over three tons dry matter per acre of chopped, ensiled forage by mid-May, Kurvin Zimmerman explains that he appreciates how the fall-planted forages spread out his seasonal workload. Planting, harvesting,

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re of Green Chop *Before* Planting Corn in Mid-May

manure spreading– all those tasks are spread out a little better than in prior years. Chopping the triticale/winter ryegrass in mid-May doesn't interfere with Kurvin's normal practices corn planting. "I've never been for early planting of corn," he explains. He likes the soil warm and wants to see the corn germinating within a week of planting.

Kurvin grew up in Lancaster County, Pennsylvania – a few miles south of New Holland. In 2005, Kurvin and Joanne Zimmerman moved from Lancaster County to their farm a few miles south west of Livingston, Wisconsin. Their move is part of a significant exodus of dairy producers from land-locked southeastern Pennsylvania to southwestern Wisconsin, where good farmland is reasonably available and the road traffic is a lot safer for folks who travel by horse-drawn buggy. Kurvin milks 60 head. He reports a RHA of over 24,000 pounds of milk, with an impressive Somatic Cell Count of under 120,000. Normal component levels range around 3.7 butterfat and 3.1 protein, but Kurvin doesn't want to talk about what summer 2012's heat did to his protein and butterfat tests.

Kurvin markets his milk through the Scenic Central Milk Producers co-op – a 300-member dairy cooperative. Scenic Central Milk Producers was founded in the late 1990s by dairy farmers who were dissatisfied with the pricing performance of the big cooperatives. Like its "Pennsylvania cousin" co-op – Lanco – Scenic Central has ZERO indebtedness and a growing membership.

Change comes from the "little guys" …

In agriculture, significant change comes from the "little guys" – independent thinkers and do-ers. (Not that Tim Huffman has been a "little guy," so to speak, for several decades.) American agriculture is caught in swirling costs and prices … to the point where rational people must step back and ask serious questions about bottom-line efficiency. Honest "change" doesn't come from politicians and big corporations (like Monsanto). Honest change comes for "little guys" on the front line, folks who can critically think and experiment.

Here in fall 2012, many dairy farmers face situations where either their crops have been dramatically reduced by adverse weather … or "normal" costs for purchased forage and grain have become impossible, given prices paid for milk. In general, the present squeeze involving milk prices and conventional dairy production costs may never be fully resolved. Thus, dairy producers with a survival ethic must take a hard look at many aspects of their current operations. For "northern" dairy producers, double-cropping forages … as demonstrated on Kurvin Zimmerman's modest, 86-acre dairy in southwest Wisconsin … is one clear advance to boosting crop production off existing land. Harvesting over three tons DM of 20% protein forages, prior to corn planting, could … indeed, *should* be one wave of dairy's fast-evolving future.

Two final thoughts:

Future success, in part, lies with small grains: triticale, barley, sorghum, etc. In recent decades, small grains have taken a backseat to "King Corn" and soybeans in the U.S. Small grains are now making a comeback. Many of these grains are not genetically-modified (i.e., they haven't been screwed up by Monsanto). And the farmer may save some small grains for subsequent replanting.

Practicality and common sense must at some point prevail over the high-cost bill of goods that the giant firms in seeds/chemicals and their Land Grant university indentured professors are trying to peddle.

Bonus for dairies: manure provides fertility boost

The alternate, double-forage production research that Kervin Zimmerman and Tim Huffman are conducting is exactly the kind of cutting-edge wisdom that should drive American agriculture. This kind of research could open the door to many opportunities and efficiencies for dairy and livestock producers who grow much of their own crops.

That dose of manure, incorporated into the soil just before fall-planting the double-forage crop, is a critical source of fertility element in the overall efficiency double-cropping forages.

For More Information, Go to:
www.peakforage.com

Dwarf Sorghum: TAKE A LOOK AT THIS SUPER PERFORMER!

On most dairy farms, there's something that catches a visitor's eye … such as a extra-nice milk cow, a group of good-looking heifers, or a well-maintained old tractor or truck. Maybe this editor is getting old, or something, but at Kurvin Zimmerman's farm, the "eye-catcher" was small, (15' by 60') plot of dwarf sorghum – the 7401 Dwarf Forage Sorghum (a 110-day maturing variety produced by Alta Seeds).

(A couple qualifiers are needed here: 7401 is a southern variety, not generally feasible at 110 days to maturity for planting in "normal" Wisconsin weather conditions. Undoubtedly, the all-time record heat during July 2012 helped this 110-day variety flourish so far.)

7401 dwarf sorghum is lush and dense. Four to eight tillers emanate from each seed. Each tiller is the approximate diameter of a healthy corn stalk. The potential mass of vegetative material is truly amazing. This demo plot was planted in 30-inch rows, with no chemicals and no cultivating. The 7401 plants grew so fast and so lush that there are virtually no weeds between the rows – the canopy of leaves blocked sunlight from reaching weed seeds. (Tim Huffman notes that the Miner Institute, located at Chazy, New York, has conducted widespread experiments using BMR sorghum varieties as an alternative to corn silage.)

Compared to corn, other advantages of sorghum raised for ensiled feed for ruminants include: lower costs for seed (per acre) and about half the fertilizer requirements. In these times of astronomical prices for seed corn and fertilizer/chemicals, those lower-cost attributes are big, bottom-line issues. Zimmerman and Huffman believe an 85-day dwarf forage sorghum has a lot of merit for northern states forage producers; that's the horse they're wagering on with intended test plots to go in the soil next spring.

The Milkweed will report estimated tonnage from this test plot next month.

Tim Huffman demonstrates a sample of the Alta Seeds 7401 dwarf sorghum from a test plot at Peak Forage Products, LLC. Note the four rugged "tillers" emanating from a single seed. What biomass!