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High Energy Forages and Soil Building Cover Crops

Too much of a good thing? High yields of unfamiliar crops may not be for everyone

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A voluminous forage harvest is usually a blessing. But this may not be the case for those who aren't prepared for it.

Some of our customers found themselves with more than they bargained for when they experimented with a mix of MasterGraze, a BMR tillering corn, and cowpeas, a viney summer annual legume. The MasterGraze is planted with a corn planter on 15-inch rows, and is often recommended for grazing or green chop prior to tasseling. (If left to grow to maturity, the corn is susceptible to disease and lodging issues.) The cowpeas are typically planted after the corn, drilled over top of the corn planting. This is usually done in a perpendicular direction to the corn rows, but parallel planting works as well. The result is a stand made solid and thick by the corn tillers (often 3-4 per plant), the close rows of corn and the vining cowpeas that thicken between and sometimes climb the corn stalks. If grazed or cut for baleage, it's a highly nutritious crop. The corn contributes digestible fiber and sugars, and the cowpeas bring protein into the mix, creating a high quality, balanced feed that needs minimal supplementation in the

barn for milk production on par with regular corn silage. The mix makes an excellent one-time grazing option after 60 days, but it can also be machine harvested for an average 3-5 tons of dry matter per acre.

Agronomically, it works well, especially in an organic system. Cowpeas fill in the spaces around corn plants for excellent weed suppression, and the corn provides structural support for the vining legume.

Most of the problems arise when it comes to harvest management. Because MasterGraze is an optimal feed at an immature stage, it can be close to 90 percent moisture at harvest, giving us a high volume of

very wet, heavy forage. At 4 tons per acre of dry matter, this material at a harvest moisture of 90% moisture is 40 tons per acre of wet material that we have to handle, a tremendous amount of wet material to put through a haybine, but we've done it! Cutting and wilting such a large volume of material, rather than direct chopping (as with corn and sorghum silage) is new to many farmers. If it is treated as a direct harvest chop, this can be done and fed directly to the cows as green chop. But it is much too wet for trench, ag-bag or silo application if chopped at this high moisture. And it can't be treated as a simple haylage crop because of its heavy mass. We have harvested this successfully with lighter smaller scale haybines, but the key is that care and attention must be taken during cutting and tedding. Instead of opening the rolls to allow more material through, we drove slower in a lower range to handle the heavy material that we had. **Driving slowly to let the machinery process all the forage is the most important consideration. Once cut, laid out wide and then teded, it will wilt down. Ted it slowly and keep it spread out wide for fast drying.**

Also important is **leaving at least a 4-inch residual**. This keeps your blades out of the soil, as well as leaving more stubble to dry the heavy material and allow air circulation around and under the swath.

After tedding and wilting down it can be handled and windrowed and bailed much easier. Windrowing and bailing of the wilted material goes quicker with the lower moisture content compared to cutting and the initial tedding when it is moist and heavy.

MasterGraze and cowpeas (and even straight MasterGraze) is a unique crop that takes some getting used to. As with anything new, we recommend experimenting with in on small acreage first. If you like it, and you feel equipped to handle it, go bigger. Lots of forage is usually a blessing, but it demands patience and preparation to make it work.

This approach is useful in dealing with other mixes as well – even simple ones – that are highly productive. In past years, we've even run into this problem with a heavy spring cutting of barley and crimson clover, a crop that yielded so well it broke our shear pins on our forage chopper, not once but three times! (Yes, we were trying to go too fast!) We need to go slow with heavy wet material. Be cautious, be aware of what you're working with, and the number one rule is **don't rush the harvest**. Your patience will be rewarded many times over with a heavy nutritious feed crop and less time in the field unclogging or fixing machinery that got jammed up from rushing it.