

Digman: Maximizing Harvester Productivity in Snaplage



Snaplage is becoming a popular alternative to high moisture corn in some portions of the U.S. Dr. Matthew Digman at the [U.S. Dairy Forage Research Center](#) has been working field and feeding trials to learn more about this potential feedstuff.

High moisture corn feeds well and can be kept in low-cost anaerobic storage. However, its field losses can be high and there are logistics concerns with the milling process. Those logistics are improved in snaplage with greater harvester availability. The downside to snaplage is the marketability of its end use and the fact that the cob and husk are involved.

In snaplage, the grain makes up 72 to 78 percent of the mass fraction; the cob at 10 to 20 percent; and the husk, stalk and leaves at 6 to 8 percent.

Harvesting snaplage looks a lot like harvesting corn silage, Digman said. Starting at the snapper head, which is retrofitted for a forage harvester, the idea is to pull the corn stalk down and pop the ear off.

Most harvesters tend to have a lot of challenges as the snaplage transitions into the feed rolls on the harvester machine. To help avoid these struggles, Digman recommended the following adjustments on the forage harvester.

Header

- The first step to get deck plates adjusted right. If they are too narrow, it will plug. If they are too wide, shelling will occur.
- Speed is limited with a snapper head. If you run too fast, you'll overrun the stalk rolls and drop ears.

Cutterhead

- A lot of people minimize the cut length to take load off of the kernel processor. You can adjust TLC up or down to promote proper feeding. Length of cut doesn't really matter with snaplage.

Recutter floors/recirculating screens

- A recutter floor provided by some manufacturers can be used in an attempt to reduce husk size.
- Recirculating screens are another method to use in attempt to reduce husk size.

Kernel processor

- KP setup is going to be tight, but most don't recommend less than 1 mm.
- Monitor the material coming out of the KP.
- Check clearances on each side, and adjust end stops as needed.

Digman's tips for successful snaplage include:

- Harvest at the right moisture – 34 to 36 percent kernel moisture (black layer). This is the biggest thing you could do. Higher moisture means less developed protein and more degradable starch. Don't err on the dry side, he said.
- Keep things tight. Run a really tight KP gap and consider recutter floor/recirculating screens. Remember it's about increasing surface area of the corn kernel.
- Don't overfill trucks. The density of snaplage is about 16 pounds per cubic foot; and husks have a tendency of blowing out onto the road.
- Pack well, fill rapidly and keep air out – typical advice for any type of silage.
- Feed out rapidly and keep a clean face. This is just as important as in any ensiling process.