

Prime Cuts:

Consideration for High Moisture Corn, Ear Corn and Snaplage

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The popularity of high moisture corn and high moisture ear corn has been consistent for some time. Snaplage has had renewed interest as harvesting equipment, like snapper heads and kernel processors, have improved. Each of these has their advantages and disadvantages which should be weighed against what is feasible for your operation and what your specific goals are.

As the name would imply, high moisture corn is corn harvested before the kernels have dried down. Harvest usually occurs between corn silage and dry corn. It is typically processed by a roller or hammer mill, packed into an appropriate structure, and allowed to ferment. High moisture ear corn is similar; however, it includes a portion of the cob. Snaplage includes the kernels, cob, and husk. See chart for dry matter compositions of these feeds. When harvesting these types of feeds, consider the use of a forage inoculant to increase feed value and decrease losses.

	High Moisture Corn	High Moisture Ear Corn	Snaplage
Corn, %	100	84 – 90	75 – 80
Cob, %	0	10 – 16	10 – 15
Husk, %	0	0	5 – 10
Crude Protein, %	9.0	8.9	7.0

Pros and Cons

One item to be aware of is that these feeds are highly fermentable in the rumen. This may increase the likelihood of acidosis under certain conditions. Some overall advantages and disadvantages of using snaplage, high moisture corn and ear corn are:

Advantages	Disadvantages
No drying costs	Less grain marketing flexibility
Earlier harvest	More storage facilities & equipment required
Ability to use an immature crop	Potential for higher spoilage & storage losses
Field losses decreased by 3 – 6%	Greater risk of acidosis in feedlot setting
Earlier availability of stalk grazing	Greater chance of sorting if snaplage is not properly harvested
Minimized sorting from added moisture in diet	

While high moisture corn is a great feed, it does have its disadvantages over high moisture ear corn and snaplage. First, tonnage harvested is lower for high moisture corn because it is solely the kernel being used. In only using the kernel, the digestible and effective fiber is also lost. The fiber provided by the corn cob and husk help to prevent the occurrence of ruminal acidosis. It also helps to reduce the amount of forage that needs to be included in the ration to maintain rumen health. Harvesting high moisture corn gives the advantage of avoiding the mycotoxin concentration within the cob portion. If corn is moldy or damaged, avoid harvesting it as ear corn or snaplage. Also, less storage space is required for high moisture corn as compared to ear corn or snaplage; there is no extra volume coming from the cob or husk.

Maximizing the Harvest

Appropriate moisture levels are critical when harvesting and ensiling high moisture corn feedstuffs.

Because the corn cob contains higher moisture than the kernel, high moisture ear corn and snaplage should have higher moisture levels than that of high moisture corn. Moisture level is of particular concern in high moisture ear corn and snaplage because digestibility of the cob decreases dramatically as it matures and dries.

Moisture testers are available to estimate the moisture of the corn grain. Typically, snaplage will have a moisture value 5% higher than high moisture corn. Ideally, harvest snaplage when the corn grain tests 28% moisture.

Ideal Moisture Levels	
High Moisture Corn (Bunker)	26 – 32%
High Moisture Corn (Oxygen Limited Silo)	22 – 26%
High Moisture Ear Corn	28 – 32%
Snaplage	35 – 38%

High moisture corn can be stored in upright or bunker silos in either a whole or ground form. Commonly, whole high moisture corn is stored in upright silos. If stored in a bunker silo, it should be ground. There is no advantage of grinding high moisture corn other than for storage in a bunker silo. To ensure adequate packing and better animal intakes, cob fraction of high moisture ear corn should be $\leq \frac{1}{2}$ inch.

Feedout

It was originally believed that starting cattle out on high moisture corn was difficult due to the risk of ruminal acidosis. However, thanks to the increased use of lower-starch corn coproduct feeds, this risk has been minimized. Utilizing corn distillers or corn gluten feed programs with high moisture corn may be more economical than the typical corn pellet diet. Combinations of dry and high moisture corn can yield 5 – 10% greater weight gain and feed than when fed individually. Feeding value of high moisture ear corn is about 6 – 10% higher than dry ear corn. Both snaplage and high moisture ear corn provide additional fiber help meet roughage needs of growing cattle.