

NEW DEVELOPMENTS IN ALFALFA CUBING AND PACKAGING

Darrell C. Payne
Manager, Product Information
John Deere Ottumwa Works
Ottumwa, Iowa

Since cubing is a well established and accepted method of harvesting alfalfa, it is somewhat difficult to comment directly to the title of this particular session.

However, there are some field developments or practices taking place that I would like to bring before you. These developing practices are a further refinement, or extension of the already recognized advantages of cubing, such as -- mechanical handling of hay to and from storage and feeding, less waste in feeding, higher animal intake, resulting in higher production. So, within this accepted context of cubing, I might comment briefly on a development or trend that appears to be taking place.

Each passing year stationary cubers represent a larger percentage of our total cuber sales. This trend is apparent over the last three year period. I want to point out that although a few stationary cubers are being used in materials other than hay, most of the increase results from the alfalfa cubing application. There are several reasons for this trend to stationary cubing that I might identify. First, and this represents the largest area of increase, stationary cubers can be operated in areas where field cubing is not possible due to moisture content of the hay.

Artificial drying is used to finish drying field cured hay from approximately 25% to 30% moisture down to the necessary 10% or 11% for cubing. This developing practice makes cubing possible in virtually any climatic condition. It also means stationary cubers can be operated more hours per day, in any climate than field cubers. Up to 24 hours, around the clock, operation is possible if hay is available and stockpiled accordingly. Due to more even feeding and continuous operation possible with stationary cubers, approximately 50% more capacity is realized than with a field cuber.

The around-the-clock operating capability further increases per day production to three to four times that of a field cuber. Longer life of wearing parts is experienced since separation of dirt and foreign materials is, or can be, accomplished at the dryer or feeding mechanism. The normal practice with stationary cubing is to field chop with a forage harvester when the hay is approximately 25% moisture, or lower where possible, transport and stockpile chopped material at the cuber site. Artificially dry as necessary, cube and cool, artificially or slab cool prior to bulk storage. It is also possible to stockpile baled hay, then chop or grind prior to cubing, dry as necessary, cube, cool, etc.

Another factor influencing the trend to stationary cubing is the interest in mixed ration or complete ration cubes. With stationary cubing, the opportunity exists to easily mix additives to the hay prior to cubing. This enables production of a cube, formulated to include precise levels of feed energy, protein, minerals, etc. And, while mixed ration cubes are being produced successfully by some operators, we at John Deere are not in a position to advertise or recommend this practice.

Cube quality, from a durability standpoint, may be sacrificed as various levels of materials other than hay are cubed. Thus, the durability of the cube for a particular situation may dictate to the possibilities of making mixed ration cubes. The various materials added to the hay, as well as the amount added, affect cube quality and so only you, the feeder or operator, can determine if a particular mixed ration cube is satisfactory.