



Industry Update - October 26, 2001

AgTech Centre Delivers Seven-Point Checklist for Selecting Bale Processors

Bale processors offer key benefits for cattle feeding, but the variety of models on the market can make it difficult for producers to make the best choice for their operation. The AgTech Centre in Lethbridge has developed a seven-point checklist and a series of fact sheets to help make this decision easier.

"As the feeding and cattle industry in general has grown, so too has interest in bale processors," says Blaine Metzger, Project Technologist at the Alberta Agriculture, Food and Rural Development AgTech Centre in Lethbridge. "But choosing the right model is not easy. While most processors are designed to operate under a variety of conditions, each has unique advantages and features."

The AgTech Centre's seven-point checklist is based on extensive testing of seven leading processor models. Key points to consider are: processing functions, power supply requirements and operating horsepower, types of material handled, ease of operation, speed of processing, cost and durability.

Processing functions vary greatly among bale processors, meaning producers should carefully consider the type of functions they need, says Metzger. "For example, some processors cannot spread heavy layers of bedding or are limited in the spreading distance. Other models spread material over greater distances, for example, to cover hilltops, sugar beet piles or manure lagoons. Some processors spread an even layer of bedding across the entire distance whereas others do not."

Feedbunk height is also another consideration. Some processors can reach high feedbunks and evenly distribute material over a fence to a feedbunk on the other side, whereas others cannot, he says.

Regardless of size, all producers may want to consider a processor with the ability to add supplemental feed or nutrients to the processing material. "In Southern Alberta this year, many pastures produced very little or nothing, so processors that could accommodate mixing in feed ingredients were in high demand."

Most bale processors are PTO driven and the horsepower requirements can range from 60 hp to 150 hp. Many small operations have limited power to operate the machines, but manufacturers have developed a range of models to accommodate almost any size tractor.

"A substantial majority of processors also require one to three hydraulic remote hook-ups to operate mechanisms such as self-loading forks, rotating material chambers or for material feeding rotors" he says. "Some of the more basic models require another tractor to load the processor, but most are self-loading, so that is something else to consider."

Determining the type of material the processor will handle on an operation is a big factor in deciding which model to choose, says Metzger. "Some can handle only round bales, or only square bales, while other can handle round bales, large square bales, small square bales and even small loose materials such as wood chips."

As well, some processors can handle only dry material, yet others can efficiently process wet material. "In our evaluations, the processors with large, open material chambers and rotors, as well as large distribution chambers, were able to process all materials. Though some were more efficient than others," he says.



Large, open material chambers, distribution chambers and rotors also play a part in the operating ease of a processor. As well, machines that allow numerous adjustments for processing mechanisms offer the most trouble-free processing. "Adjustments for material feeding, processing speed and aggressiveness, length of cut, material distribution and other parts of the processing sequence are the best for controlling the final product."

Speed is another factor to consider, but isn't as critical for the smaller operations as for large feedlots. "An adjustable, aggressive processing mechanism and material feeder system with a large processing chamber ensures the quickest processing of all materials," explains Metzger. "A large open distribution chamber also helps because it provides the least material flow resistance."

Price and durability are significant factors as well. The cost of a bale processor will vary depending on the adjustment capabilities, processing capabilities, materials handled, self-loading ability and extra options, he says. "A rule of thumb in assessing durability is the fewer moving parts the better," he says.

Ultimately, says Metzger, farmers will have to decide what is right for their specific operations. "Choosing a bale processor is a compromise between features, capabilities and cost."

For more information on bale processor selection, including bale processor buying guides and Evaluation Report 747, Bale Processors, contact the AgTech Centre at, 3000 College Drive, Lethbridge, Alberta, Canada, T1K 1L6. Phone: 403-329-1212. Fax: 403-328-5562.

The recently renamed AgTech Centre is part of the Alberta Agriculture, Food and Rural Development Agricultural Engineering Branch. The AgTech Centre has expanded its mandate to include all aspects of agricultural sustainability.

For more information, contact:

Blaine Metzger, Project Technologist or
Rick Atkins, Manager, Branch Head, Engineering Services
AgTech Centre
Alberta Agriculture, Food and Rural Development
Phone: 403-329-1212
Fax: 403-328-5562