

# Crop Technology

## Making & Marketing Horse Hay

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### Infosheet

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The rural landscape in Ontario is changing, and we are seeing more and more horse farms. There are about 300,000 horses in Ontario, and the numbers are increasing. To put this in context, there are about 350,000 dairy cows and an equal number of dairy heifers. There are also approximately 400,000 beef cows, an equal number of beef calves, and about another 450,000 cattle on feed. The U.S. has over 9 million horses. Many of these are located in the eastern States, within trucking distance from Ontario.

#### MARKET POTENTIAL

A horse will typically consume 2.0 to 2.5 % of its body weight per day in forage dry matter. There are also feeding losses when hay is trampled or wasted. Some of the forage is pasture, but mostly dry hay. This means there are approximately 750,000 tonnes of hay fed to Ontario horses every year.

A large proportion of horse farms do not produce their own hay and rely on purchased hay. Many horses are owned and managed for recreation, entertainment and sport. Horse owners often have other income. Unlike other livestock owners, what horse owners are willing to pay for hay that meets their criteria is not necessarily highly correlated with the commercial value of their horses. For hay producers, this is a huge potential market.

#### LISTEN TO YOUR CUSTOMER

The first rule of marketing should be to "identify the product your customer wants to buy, and then produce that product". This certainly applies to producing and selling horse hay, both domestically and for export. In order to be successful in the hay business, a new skill set is required that includes not only the hay production skills, but also a huge effort in marketing. Knowing your buyer and what she wants in terms of quality is a crucial component in carving out a niche in this market. Do your market research first, before you make the hay.

#### REDEFINE QUALITY

The criteria for "quality hay" are quite different for horses than they are for cattle. Forage quality for dairy producers means a high percentage of alfalfa, and early cutting to ensure high protein and digestible energy. Cattle are more tolerant to rain-damage or dustiness than they are of advanced maturity from late cutting.

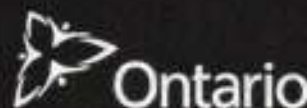
#### FREEDOM FROM RAIN-DAMAGE, MOULD & DUST

By contrast, for horse owners, "quality hay" most importantly means dust-free and mould-free. Mouldy hay is the result of rain damage, baling at moistures that are too high, slow drying in the windrow during high humidity, or improper storage. Horses are very susceptible to mould spores and suffer irritation of the respiratory tract. This can result in temporary coughing, or the more permanent Chronic Obstructive Pulmonary Disease, also known as heaves. Horses develop a chronic cough and "wheezing" that is very serious and damaging. Mouldy hay can also cause colic, a digestive disorder that can be fatal to horses.

#### MATCH THE TYPE OF HAY WITH THE HORSE

Matching the nutrient content of hay with the requirements of the horse is important. There are many different types and uses of horses with different levels of nutrient requirements. Relative to dairy cows, horses do not have high crude protein (CP) requirements. Some horse types, such as idle and lightly used mature horses, may have CP requirements of less than 10%. On the other hand, nursing broodmares, high performance horses (such as racehorses), and growing horses require higher digestible energy and protein diets, and therefore higher nutrient content hay. However, a large proportion of horses in the countryside, including the many idle or lightly used recreational horses, do not require high energy or even moderately high protein diets.

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A lactating mare, or a high performance horse that is fed only low nutrient hay will lose weight and not be able to perform optimally. On the other hand, a mature horse used for the occasional trail ride is at risk of being too fat if fed high digestible energy hay. Hay that has no mould or dust is more important to maintaining the health of this horse. Therefore, the priority is having hay with no rain-damage or mould, rather than having early-cut hay of high nutrient content.

For these reasons "quality" for horse hay most importantly means dust-free and mould-free. For a large proportion of the horse hay market, early cutting to increase protein and digestible energy is not as important, or even necessarily desirable. Grass or grass-alfalfa mixtures are often more suitable. The preferred mixture is typically alfalfa and timothy.

Because the priority is making hay with no rain-damage or mould, horse hay producers tend to be more patient, waiting for larger hay-making windows when a lower chance of precipitation is in the forecast. Later-cut, more mature forage is also often easier to dry to acceptable moistures for baling.

#### **GREEN, SOFT & WEED-FREE**

Colour does not provide any direct information on the nutritional content of hay, but a poor colour can be an indicator of problems during harvest and storage. A rich green colour indicates that the hay was not rained-on, dried quickly (indicating higher sugar content), and did not heat or mould during storage. Hay with a sweet smell is more palatable to horses. Similar to colour, poor odours can often indicate harvest and storage problems, particularly mould. Weeds and trash, such as old stubble, will reduce the value of horse hay. Weeds can be present in pasture and hay that are highly poisonous to horses.

Soft hay is more palatable to horses. Unlike cattle, horses use their mouth and lips to manipulate hay and pasture plants when eating. They easily sort their feed and eat leaves while leaving the coarse stems. The mouth, lips and tongue are very soft and sensitive, so they will avoid and waste coarse materials.

#### **THE PACKAGE - BALE TYPE & SIZE**

While there are some opportunities to market large round and large square bales to horse owners, small square bales provide the greatest opportunity to meet the premium price horse hay market. This means manual labour or investment in automated small bale handling equipment. Small square bales are usually loaded

on a truck and then handled many times, so they need to be firm, "square shouldered" and hold their shape. "Banana" bales and "almost-broken" bales are not acceptable.

Bale size is important to fit trucking requirements, as well as be a consistent and manageable size for handling. A 50 lb bale is about the heaviest that can be comfortably handled at riding stables. A 36 to 38 inch bale often fits the market, with about 9 to 11 flakes, or slices. Small square bales should be stored on their edge. Similar to the hoops of a barrel, the twine helps the bales maintain their shape and prevents flattening. This adds to a bale's ability to "breathe" and dissipate moisture.

There is some demand from horse owners for large round bales, based on their lower cost. Large bales are a convenient way to feed large groups of horses outside, but many horse farms do not have a loader tractor to handle them. Opportunities to market large bales to horse owners can be increased by providing delivery to the farm.

Large square bales have some potential in the horse market. Because they are more dense and need to be drier at baling, large square bales can be more challenging to make without mould and dust. They are easy to feed outside, but unlike large round bales, large square bales can be "flaked" and are therefore also easier to feed to stalled horses inside.

#### **MARKETING SKILLS**

Special marketing skills are necessary to be a successful horse hay producer. Marketing is not the same as producing a product and then selling it for whatever price can be had. Marketing involves identifying a product that consumers want to buy and then producing the product. Remember, the customer is always right. Know your markets. Talk to potential customers to identify market opportunities. Are you selling directly to the horse owner, or a hay dealer? What kind of hay do they want, and in what kind of package. Are you delivering? How will you ensure you get paid? Are you targeting local or export markets?

Gain market share by selling a quality product, rather than selling at a lower price. Research what the market is prepared to pay for a specific type and quality of hay. Work closely with a reputable hay dealer, or develop your own markets by networking, advertising and personal contact.

Hay is sold on the basis of reputation. For repeat business, be sure to meet the buyer's expectations on the type and quality of hay. Buyers don't like surprises. They want a consistent supply of hay that is of a desired quality. Taking care of existing customer loyalties is likely easier and cheaper than trying to find new customers. Marketing efforts may also add value to the product by providing services, such as delivery and education to the buyer. Be sure to have adequate liability insurance.

Sorting hay according to type and quality as it goes into storage is important. Hay producers targeting the horse market usually have alternate markets for hay that does not meet the quality criteria because of rain-damage or mould. This is often sold into the beef cow market for a much lower price.

#### **HORSE HAY AS A "CASH CROP"**

There are opportunities to "add value" to hay crops by producing a specific hay product that the market wants to buy, and by providing customer service. When producing and marketing quality hay, management efforts can have tremendous impacts on both yield and price.

Successful horse hay producers and marketers pay attention to small details – they add up and make a difference. Making quality horse hay involves a certain "art" or "craftsmanship" learned from experience. It is necessary to be ready for timely harvest. Using newer hay harvest technology, such as new design conditioners, rotary rakes, windrow invertors, preservatives, and bale accumulators, can reduce drying time and labour. Hay crops have high removal rates of phosphorus and particularly potash, so fertility is important.

Cattlemen or dairy producers that view the horse hay market as a surplus market and do not produce the product specifically for horse hay are often disappointed and miss out on the potential premium prices necessary to make a profit.

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