Establishing a Value for Standing Hay

There are many factors that impact the value of standing hay. The value of hay fluctuates depending on the local supply and demand and winter survival of the crop. The crop quality, size and location of the stand, forage mixture, and local land rental rates also impact the value. Recently the baseline value of standing forage crops has decreased substantially due to lower hay and commodity feed prices.

When renting a field of standing hay you're really buying a product that is already established, but not yet harvested. When renting hay ground the landowner should get, at minimum, a bare land rental price plus the cost of alfalfa establishment prorated over four years, and the value of nutrients removed by the alfalfa crop. If they can't get that minimum, then there may be more value in just renting bare land without the cost associated with establishing alfalfa.

Several factors will likely lead to lower prices for established hay ground in 2016. Land cash rents have declined about 2% in each of the last two years. Second, as of mid-April it appears that most alfalfa fields have come through winter in good shape. Third, Wisconsin hay stocks have increased dramatically from 2013 and the disappearance of hay in 2015 decreased leaving the current hay supply still greater than the demand. This has resulted current in Wisconsin hay prices being 28% lower than they were a year ago.

The value of P and K nutrients removed by alfalfa is a major consideration when pricing hay ground and standing hay. Each ton of forage dry mater removed from hay fields removes 13 lbs. of Phosphorous (P205) and 60 lbs. of Potassium (K20) fertilizer. Using the county's average hay yield of 4.5 tons D.M./acre that equals 58.5 lbs. of Phosphorous and 270 pounds of Potassium that needs to be replaced to maintain soil fertility annually. If we place a current value of K at $0.28/ lb. that adds up to a cost of $16.80 for each D.M. ton of alfalfa. With a 4.5 D.M. ton per acre yield, that adds up to a value of $75.60/acre (4.5 tons x $16.80/ton) of K that needs to be replaced if all 4 cuttings are sold.

If we assume the prevailing bare land cash rent value is $155/acre and prorated alfalfa seeding costs (planting and seed cost) are $40/acre/year. The minimum price needed for standing alfalfa is then $195 per acre PLUS the value of potassium that is removed ($75.60/acre) we come up with a number of $272.60/acre that the owner needs for 4 cuttings of alfalfa. Add to this amount another $27/acre to replace the pounds of phosphorous (P205) that is also removed with that same yield and the total cost is $300/acre. This represents the amount the landowner needs to cover land, crop establishment, and maintenance fertilizer costs, if the land owner is paying for the maintenance fertilizer.

What about the buyer's perspective? On average, it costs about $35-40 to harvest a ton of forage dry matter (DM). As we calculated above, potassium removal will be about $17/ton of D.M., and phosphorus removal will be about $6/ton of D.M. Adding these three amounts together gives us a total minimal investment of $58 to $63/ton D.M for fertilizer replacement and harvest cost. With that value comes some weather risk of getting a quality crop harvested.

If the owner decided to charge $200/acre plus fertilizer replacement costs, the total investment for a 4.5 ton per acre yield is roughly $102 to 107 per D.M. ton (($200/acre divided by 4.5 tons = $44) + $58 to $63 for harvesting and fertilizer = $102 to 107)). That price is equivalent to paying about $51 to $54 per ton for Haylage @ 50% D.M., or about $87 to $91 per ton for baled Hay @ 85% DM. Comparing this to current hay market prices this may or may not be a good buy. That answer will vary for each farm.

Keep in mind that the process is more important than the actual numbers, as land values, harvest costs, and fertilizer will vary with each situation. For example, some fields with soils that test excessively high in phosphorus will not require any to be added for several years and reducing the P levels may free up more land to spread manure on. The final cost is also going to differ by location, yield and quality of the hay. Renting standing alfalfa may or may not be a good deal and farmers should run their own numbers. Compare the cost of buying standing hay and incurring the harvest costs along with weather risks to buying hay already baled or chopped out of the field at harvest time.

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