

Current Hay Conditions in Ohio

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The weather conditions have been variable in Ohio this summer. Some areas have been extremely dry and other areas have been very wet during the past two to three months. Thus, hay yield and quality are quite variable across Ohio. For those areas that have been very dry, yields have been adversely affected, even though the quality of the hay harvested may be rather good. For the areas that have been wet, it has been very difficult to get the second and three cutting harvested. Thus, even though yields may be respectable, quality has been adversely affected. Therefore, many livestock farmers in Ohio need additional hay for the winter. In some cases, they need to purchase hay of higher quality than they have on hand. Now is the time to make such purchases as the last cuttings of the year are occurring and before prices creep up post harvest as supply diminishes with ample demand.

Some resources are provided in this article that you may find useful in locating hay or determining the prices for which to buy or sell. A couple of sources of hay include Farm and Dairy's hay listing (<http://www.farmanddairy.com/markets/ohio>) and the online listing by state with Hay Exchange (<http://www.hayexchange.com/oh.php>). Many areas have local auctions for hay, but a few of the larger auctions in Ohio are the Kidron and Mt. Hope Auctions listed in Table 1. As noted, prices are quite variable, caused primarily by quality and demand. The USDA Ag Market News also provides current prices for hay in several areas of the US, including New Holland, PA (Table 1).

Pricing of hay

The value of hay demands on its nutrient composition and balance of supply and demand. The prices in Table 1 are affected by each of these aspects. In each issue of the Buckeye Dairy News (BDN) (<http://dairy.osu.edu/newsletter/buckeye-dairy-news>) an article is provided that provides the predicted value of feeds based on chemical composition and current prices of commodities, including the predicted price for alfalfa hay of varying quality. For example, in the July 2016 issue of BDN, alfalfa hay was priced at \$190 (16% CP, 48% NDF) to \$236/ton (24% CP, 32% NDF). Based on the July prices for nutrients published in the BDN, the following associations were made that can be used for pricing hay based on quality:

- 1) Composition of CP and NDF (DM basis): \$/Ton (as-fed) = $(6.89 * \%CP) + (2.51 * \%NDF)$, e.g. hay with 18% CP and 35%NDF = $(6.89 * 18) + (2.51 * 35) = \$212/\text{ton}$
- 2) Relative Feed Value: $RFV * 1.96$, e.g. hay with RFV of 140 = $140 * 1.96 = \$274/\text{ton}$

These price estimates are based on primarily the nutritional value of the hay based on current prices for commodities as of the end of July 2016. Of course, these commodity prices are influenced by market pressures. Yet, as the market prices change for the appraisal set of commodities used, these equations will be invalid to use.

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Also, as farmers buy and sell hay, it is helpful to know the expected quality measures relative to the hay available. Therefore, the average, range, and standard deviation for alfalfa, mixed mostly legume, mixed mostly grass, and grass hay analyzed during the 12 months prior to April 30, 2016 at the Dairy One lab in Ithaca, NY have been provided in Table 2. You will note that the variations for DM are rather low, but the variations increase with the other variables, some of them being quite high. As expected, the variation is higher for the mixed hay in comparison to the alfalfa or grass hay.

As we reach mid-September, the window for harvesting hay narrows, especially for alfalfa to give it an opportunity to build root reserves before winter. Even for harvesting grass hay, it becomes difficult to get it dry with the heavy dews, shorter days, and intermittent fall showers. So the merchandizing of hay is at a prime time to meet the needs of the buyer and the availability from the seller. Following the local and reported market conditions and the possible upper value based on the equations in this article can provide a negotiating range for the seller and buyer to make a deal. Although supply is almost set for local hay, the demand can change and always consider the options of buying western hay.

Table 1. Recent prices for hay in northeast Ohio and southeast Pennsylvania.

Market/Item	Price (\$/ton)
<i>Kidron Auction, August 25¹</i>	
First cutting hay	230-250
Second cutting hay	250-310
Third cutting hay	260-350
Large hay bales	70-80
<i>Mt. Hope Auction, August 31²</i>	
Alfalfa, second cutting	250-325
Alfalfa, third & fourth cutting	175-400
Mixed hay, first cutting	50-250
Mixed hay, second cutting	250-325
Large bales	30-270
<i>New Holland, PA (wk of Aug 29)^{3,4}</i>	
Alfalfa	
Large alfalfa hay bales	140-145
Small squares	
Premium	230
Fair	90
Alfalfa/grass	
Large squares	
Supreme	225-250
Premium	180-205
Fair	105-125
Small squares	
Supreme	300
Premium	210-250
Grass	
Large squares	
Premium	150-200
Good	120-170
Fair	80-125
Small squares	
Premium	250-320
Good	140-195
Fair	80-125

¹Kidron Auction, Kidron, OH; <http://www.kidronauction.com>

²Mt. Hope Auction, Mt. Hope, OH; <http://www.mthopeauction.com/>

³Market information from USDA Ag Market News, www.ams.usda.gov/mnreports/QA_GR111.txt

⁴Alfalfa quality guidelines: Supreme = > 22% CP, < 27% ADF, < 34% NDF, and > 185 RFV; Premium = 20-22% CP, 27-29% ADF, 34-36% NDF, and 170-185 RFV; Good = 18-20% CP, 29-32% ADF, 36-40% NDF, and 150-170 RFV; Fair = 16-18% CP, 32-25% ADF, 40-44% NDF, and 130-150 RFV. Grass quality guidelines: Premium = > 13% CP, Good = 9-13% CP, and Fair = 5-9% CP.

Table 2. Average composition of legume and grass hay during the past year (range; standard deviation).^{1,2}

Forage	% DM	% CP	% NDF	RFV	RFQ
Legume hay	90.2 (88.9-91.6; 1.3)	21.5 (19.0-24.0; 2.5)	39.4 (34.4-44.5; 5.0)	156 (130-182; 26)	146 (116-175; 29)
Mixed hay, mostly legume	90.3 (88.6-92.0; 1.7)	19.9 (15.0-24.7; 4.8)	46.0 (37.3-54.9; 8.8)	133 (96-171; 37)	123 (94-151; 29)
Mixed hay, mostly grass	91.4 (89.3-93.6; 2.2)	13.7 (8.3-19.1; 5.4)	58.6 (50.1-67.0; 8.5)	99 (75-122; 23)	128 (64-191; 64)
Grass hay	92.0 (89.9-94.1; 2.1)	11.5 (7.2-15.8; 4.3)	61.4 (54.5-68.2; 6.8)	92 (74-110; 18)	121 (89-152; 32)

¹Data available from Dairy One, Ithaca, NY, <http://dairyone.com/analytical-services/feed-and-forage/feed-composition-library/interactive-feed-composition-library/>; Data from time period of May 1, 2015 through April 30, 2016.

²Abbreviations: DM = dry matter, CP = crude protein, NDF = neutral detergent fiber, RFV = relative forage value, and RFQ = relative forage quality.