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Hay Prices for New Mexico **Volume 10, Issue 2** **May 18, 2011**

County	Contact	Premium Hay ($/ton)	Top Quality Hay ($/ton)	Other Hay ($/ton)	Condition/ Market Activity/Cut Complete
Chaves	Sandra Barraza, County Agent	$200-225 large delivered; $220-260 small, in barn	Same as Premium	N/A	1st cut 95%; Demand strong; Very dry with extreme fluctuations in temperature; Substantial yield variation.
Colfax	Boe Lopez, County Agent	$180-190 for all remaining classes			Waiting on 1st cut; cold and very little water; Some of 2010 crop still in the barn
Eddy	Woods Houghton, County Agent	$225-240 large; $250-300 small	N/A	N/A	1st cut 100%, 2nd 20%; alfalfa slow growing; low humidity, baling difficult
Lea	Wayne Cox, County Agent	$220-225 large; $9.00 small	$185-200 large	N/A	1st cut 100%, 2 wks from 2nd.
Luna	Jack Blandford, County Agent	$210-220 large; $6.00-7.00/bale small	N/A	$175 large wheat hay	1st cut 100%, 2nd cut 50%; High demand on all classes; Hot, dry, windy; Some wind damage.
Roosevelt	Patrick Kircher, County Agent	$240-270 FOB; $6.50-8.50/bale small	N/A	$6.50-7.00 small wheat in the field	1st cut 100%; Taking wheat, asking for alfalfa; Hot and dry; Low yields; Heavy weevils early
Valencia	Kyle Tator, County Agent	$200-220; $6.50-7.50/bale small	$6.00/bale small	<$5.00/bale for cow hay	1st cut 15%; Demand high, 2010 supplies gone; Moderate aphid/weevil pressure

N/A = prices not available at this time

Sorghum Hay Options for Limited Irrigated and Rainfed Conditions in New Mexico

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While alfalfa hay is the most widely grown crop in New Mexico and brings the highest premium of the various hays capable of being grown in the state, there are many situations in which alfalfa cannot be grown successfully. One of those is when very little (or no) irrigation exists to help supply the large water demand required for highly productive alfalfa. Fortunately, there are several options available to producers that will allow an alternative source of hay or silage income or utilization when water is scarce. One of these options is sorghum. Sorghum forages remain an integral part of livestock systems in New Mexico and other semiarid subtropical environments. Currently, three types of annual sorghum forages are most commonly used. Forage sorghum is typically planted as a row crop and harvested for single-cut silage, but occasionally it is drilled in closer rows and harvested for multiple-cut hay even though regrowth usually isn't very good. Sorghum x sudangrass hybrids (commonly referred to as 'haygrazer') are usually planted in closer rows and harvested in multiple-cut systems for hay because they do have good regrowth potential. The third class of sorghum forages includes very late-maturing and photoperiod sensitive sorghum-sudangrass hybrids or forage sorghums (Fig. 1). These plants remain vegetative until daylength drops below about 12½ hours, which happens after late September in most of New Mexico.

While sorghum forages are very drought and heat tolerant, irrigation is necessary to maximize yields in semiarid regions. Water for irrigation has become limiting in many areas; so, two studies were conducted recently at New Mexico State University's Agricultural Science Center at Tucumcari to evaluate sorghum forage options under limited irrigation and rainfed conditions in New Mexico.

In the first study, annual dry matter yields of furrow-irrigated sorghum forage types, all drilled for hay, were compared from two years each of full irrigation (24 inches irrigation + 13 inches May to October precipitation with two harvests), limited irrigation (12 inches irrigation + 13 inches May to October precipitation, also with two harvests), and rainfed (11 inches May to October precipitation, with one harvest).

Conventional and photoperiod sensitive sorghum-sudangrass hybrids outyielded forage sorghums under irrigation, and 25 inches of applied water (irrigation + precipitation) produced yields that equaled 37 inches of applied water. Yield of all sorghum forages was greatly reduced when no water was available for irrigation. Forage sorghum and photoperiod sensitive sorghum-sudangrass hybrid yields tended to yield more than conventional sorghum-sudangrass hybrids in rainfed years when July and September precipitation was sufficient. July and September precipitation appeared to have the greatest influence on productivity in each year without regard to irrigation status.

Figure 1. Photoperiod sensitive sorghum (left) exhibiting tall, vegetative growth. Notice lack of grain heads compared to adjacent varieties.

In the second study, a forage sorghum was compared to a photoperiod sensitive sorghum-sudangrass in a single-cut system with four planting dates. The planting dates ranged from that typical of an irrigated sorghum-sudangrass in mid- to late-May to mid-July, typical of what a dryland grain sorghum producer might do as he waited for soil moisture. Similarly, with the study already discussed, the rainfed forage sorghum yielded as much as a ton/acre less than the photoperiod sensitive sorghum-sudangrass in the mid-May to mid-June plantings. Waiting past about mid-June to plant any sorghum forage in rainfed systems leads to a considerable yield reduction, likely because the time is too limited for vegetative growth. Although the yield reduction is greater for the photoperiod sensitive types, there is evidence to suggest that they will still yield more than the conventional forage sorghum if planted in late-June.

Figure 2. Sorghum forages can produce considerable amounts of hay with moderate amounts of water and nutrients.

In conclusion, while conventional sorghum-sudangrass hybrids had high yields under irrigation and the forage sorghums had high yields (relatively) in rainfed conditions, the photoperiod sensitive types offer the greatest flexibility across irrigation status as well as harvest timing, especially in regard to avoiding stress situations that lead to high nitrate levels. Additionally, planting needs to take place before mid-June to maximize yields. If sorghum is planted for hay production, nutritive value is contingent upon keeping stems small (i.e., high seeding rates and drilling in close rows) and harvesting at the proper stage. For optimization of both yield and quality, in addition to rapid drydown after swathing, these hays should be harvested no later than boot stage. While waiting until after heading will yield more forage, the nutritive value will be considerably lower. In addition, cutting earlier will allow for potentially more subsequent cuttings in the same year, depending on location in the state.

In any case, variety selection is critical to increase chances of harvesting the most possible hay, whatever class of sorghum forage is chosen. For further information about sorghum forages contact your County Cooperative Extension office or visit the NMSU Cooperative Extension Service publications website (http://aces.nmsu.edu/pubs/).

******* UPCOMING EVENTS *******

• Dairy Producers of New Mexico Convention, Ruidoso, NM, June 10-11, 2011. www.nmdairy.org

Mark Marsalis, **Mark Marsalis, Extension Agronomist—New Mexico State University is an equal opportunity employer. All programs are available to everyone regardless of race, color, religion, sex, age, handicap or national origin, New Mexico State University and the U.S. Department of Agriculture cooperating.**