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Alfalfa Market News

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Inside this issue:

Hay stackers have come in handy this year.

Running to the Home Stretch for Final Cuts

Farm Hay Prices—November 9th **Price ($) per ton or by bale**

County	Contact	Premium Hay ($/ton)	Top Quality Hay ($/ton)	Other Hay ($/ton)	Contract ($/ton)	Cut Complete	Market Activity
Chaves	Sandra Barraza, County Agent	$160-195, large, not delivered. Much sold out.	$155-160. Some continued to be held back for winter sales.	Varies depending on condition and supply and quantity purchased.	Varies. Supply right now and earlier contracts vary.	90% of 6th.	Good.
Dona Ana	John White, County Agent	$5.50-7.50 small/heavy, $180-220 per ton.	$170-180/ton delivered, $5.50-5.00 for small bale.	$180 or less, round bales, small at down below $5.50 to $4.50 on black.	$3.00 to $8.00 small, $135-220 or more contract	100% of 7th cut.	Strong.
Eddy	Woods Houghton, County Agent	$205 per ton small; $180-big bale.	Light striped, $185 small, $165 big bale.	Stiped at $175 small, $155 large bale.	Varies. Prices are going up currently as supplies are short.	100% of 7th cut.	Strong.
Lea	Wayne Cox, County Agent	$190 per ton; small bales at $6-7 currently.	$180 per ton and small at $5-6 each.	$175 per ton and small at $5 each. Arid conditions currently.	Varies but custom cutting is $1 small.	100% of 6th cut and 95% of 7th. Large bales custom baled at $15.	Strong and in demand.
San Juan	Gary Hathorn, County Agent	$220-190 per ton pricing currently. Demand very good.	$190-160 per ton, requests continue for local hay.	$160-90 per ton if available. Hay supplies are limited.	Varies, from precontracted at $130 up to $185.	Cuts complete	Good.

Fight Fire with Correct Moisture Hay

Statewide. When storing hay for the winter keep in mind that too much moisture in hay can cause quality loss or hay fire potential. Moisture in hay can be from rain or inadequately dried hay, high stem moisture when curing has not occurred correctly or from dew moisture when timing of baling is too early or late. High-moisture levels can lead to molding or to internal combustion and haystack fires. Moisture sampling in the windrow is essential to preserving high quality hay when rains make baling difficult. Make sure hay is sufficiently cured before baling. Hay at less than 15 to 20% moisture remaining at temperatures below 120°F generally will not have forage quality loss but lower than 16% moisture will further insure less mold and less mustiness. Windrow hay can be sampled for moisture and temperature with an electronic bale moisture probe and the use of a windrow-sampling tool that simulates the compaction of hay in the bale. Samples may also be oven-dried to double-check moisture probe readings. Usually here in New Mexico, hay does dry quick enough that the windrow hay testing is skipped, however, once hay is baled and stacked, it is essential to test for moisture and temperature. Questionable hay should be checked with a hand-held digital moisture and temperature detector, if available, once hay is stacked. Use of the digital moisture should be done by inserting the probe detector into individual bales at least 12 inches, reading the digital display for moisture and temperature after the time required for accurate readings, then cleaning the probe tip (if brass with fine steel wool) before testing another bale. This process should be repeated at least 20 times within each stack of 200 tons of hay. Temperatures at 110-150°F can signal problems as heating caused by fungi respiration heats up hay. Heat at this range can cause some protein and fiber in hay to become less digestible and some hay to begin caramelizing—giving it a tobacco-cured color and aroma while also causing a loss in hay digestibility. Temperatures reaching up into 135-160°F range has heavy fungi respiration and hay should be check at least every day. If temperature continues to rise and is not dissipated by removing stacked bales apart, fire can occur. At 160°F, check hay every four hours. At 175°F, hay should continue to be checked every few hours and bales pulled from storage to help in dissipating the heat and allowing hay to dry out. Hay at 195°F or higher is dangerous. Spontaneous combustion is very probable. Mold can also easily accumulate on wet hay to even being visible on the hay surface. Halt hay fires in New Mexico. Wait to bale until moisture drops, then check the readings for storage conditions sought. Once the temperature and moisture is right, then stack in the barn.

Alert! Alert! Alert! Alert!

♪Stack in winter 2006-2007 hay supplies prices will continue up through winter.

♪ Prepare for pecan and finish cotton harvest. Much of the cotton has begun to roll in with variable yields depending on hail and other weather related conditions.

♪ Continue controlling weeds around fields to prevent weed seed bank increases.

♪ New alfalfa stands are off to an excellent start for potential good cuts in the spring.

♪ Grain sorghum harvest is continuing with yields better than expected due to late rains.

♪ Fall lettuce and cabbage is still rolling out of fields although much is headed for Mexico now.

♪ Check wheat fields for insect and any possible pest problems—disease, insect and weed. Current weather conditions have had wheat fields looking good but moisture will be needed in some areas.

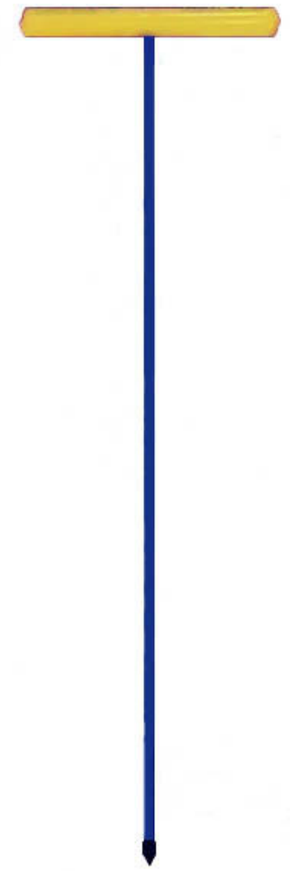
♪ Peanut harvest is about to wrap up with a harvest that may be a bit smaller than last year.

♪ Onions planted for June harvest are looking excellent in southern fields, especially on drip around Deming with water quality making a difference.

♪ Drip irrigated cotton around Deming is showing good yield on both Upland and Pima. Lack of hail in much of the region has 4 bale Pima and 5 bale Upland being seen. Some areas have had enough of a frost to limit defoliate needs this year but where needed a boll opener first applied may have helped in some areas.

♪ Finish last clean-up tillage operations where needed to prepare fields for next spring planting. Prepare maps for field planting in the spring. Clean up equipment and fields for winter. Look to any soil areas that may have become compacted with summer rains to demand more attention this spring. Some laser leveling is currently occurring in fields where harvests are complete.

Soil Test to Winterize Your Forage



Nationwide. In alfalfa phosphorus is generally the most limiting nutrient. Phosphate fertilizers should be applied for establishing new stands at rates that are based on soil test results. Fall fertilization of established stands, if needed, should also follow soil test suggestions but will have to be limited applications and will be slow to be slowly incorporated in and become available. If planning on spring new plantings, consider incorporation of broadcast applications of phosphate fertilizers into the soil just prior to seeding. Apply nitrogen to fields needing small amounts for the establishment of the new stands, especially in irrigated alfalfa and other forages based on the NO_3-N (nitrate-nitrogen) levels suggested from soil testing. Many of our New Mexico soils contain sufficient available potassium and sulfur for forage production but if land has previously been intensively cropped, especially in annual row crops, consider testing for levels of these nutrients to confirm if any is needed.

Profitable and sustainable forage production requires adequate soil fertility. Having available nutrients as needed helps crops to buffer against other stresses and pest effects in the field. Alfalfa is the most productive of the forages and as such should be carefully monitored for nutrient needs to sustain yields. As it is moderately tolerant to soil salinity (plant on soils with less than five decisiemnes per meter (dS/M) or less than five millimhos/cm), careful placement of alfalfa on better land will not only keep yields up but will allow alfalfa to fix nitrogen (N) making a need for N fertilizers usually only for new seedlings during early establishment. However, if a companion crop (such as a grass) is used to establish a new stand, some additional nitrogen may be needed if initial N levels in the soil are low.

Within established stands, sample in the early fall for nutrient needs and so if needed, phosphorus can be topdressed prior to winter. When taking soil samples, take a composite of 15 to 20 cores from a random cross-section across a uniform soil type from the one-foot depth. Manage areas with major soil property differences as separate samples. Dry all soil samples by simply spreading out the soil on clean paper or other clean surface where the soil will not be contaminated. Do not oven dry the soil as this will change the soil test results. Ship dried samples to your local soil test laboratory. Be sure to also submit the information sheet required by the soil lab so that your results can be tailored to your specific field situation.

Most New Mexico soils do contain adequate levels of available sulfur (S). However, alfalfa does have a high S requirement, as a 4-ton per acre crop can remove 20 pounds of S per acre. So, over time, soil levels of S may decrease, especially on soils with low organic matter. Irrigation water can add slight levels of S to soils, but well water as well as strictly snow-melt water are low in SO_4-S (sulfate-sulfur). Generally, there are no deficiencies of boron (B), copper (Cu), iron (Fe), manganese (Mn) or zinc (Zn) in alfalfa fields in New Mexico, nor in perennial grasses or even grass-legume forage mixtures. However, if previous plant problems or early forage establishment leads to a possible idea that macro– or micro-nutrient needs are there, soil test to confirm.

Sample Hay for Livestock Gain

Nationwide. Hay sampling is important to insure an accurate forage test toward animal performance needs and ration building. But, the problem is that out of the hundreds of thousands of pounds of hay in the stack, the forage tested comes from a small sample. Indeed, sampling variation is one of the most common problems in hay testing. The nutrition analysis obtained after all is only as good as the sample tested from the forage received in the lab.

A recommended protocol for sampling hay has been established. First, identify a single "lot" of hay. This might be a single field, variety and even a single cut. Don't mix cuttings or fields or more variance will occur among samples. Use a sharp coring device that is about 3/8 to 3/4 inch in diameter. Never simply send in flakes or grap samples. Sample at random. Take a minimum of 20 cores for a composite sample, mix and take a representative grab sample from this assortment. Sample the butt ends of hay bales, but between strings or wires and not near the edge. Probe about 12 to 18 inches into bales for the samples. On round bales, sample toward the middle of the bale. With each sample for the composite mix of one cutting, take about 1/2 pound each time. Once a composite sample is obtained, seal it in a plastic bag and protect it from heat and deliver it to a lab as soon as possible. Choose a National Forage Testing Approved (NFTA) lab for forage testing. These NFTA labs have run samples that were given to many labs and have consistently demonstrated that their procedure can match the true mean within an acceptable range. In other words, they have demonstrated their commitment to good results.

University results from Arkansas have shown that winter feed costs can be reduced by forage testing to balance rations. Hay testing was the key to cost reduction in the study. The ten producers in the study were often overfeeding protein and underfeeding energy sources. The savings in feed costs understandably came from reducing the quantity of the more expensive protein input and instead providing more of the cheaper energy feeds. A better-balanced ration also improved herd health.

When hay quality was above average in the study, producers saved $3.50 to $12 per head in winter feed costs. Many did not realize that their hay quality was so excellent--so before forage testing, they were either overfeeding supplements or not feeding the correct supplement. Locations where hay quality was poor, supplemental feeding costs actually increased—with improvement only when steps were made to improve feeding recommendations. In the later case, the producers were not feeding enough supplements, thus lowering cattle performance—once again proving the importance of harvesting and using high quality hay.

Besides forage testing to balance rations to reduce winter feed costs, other factors found to be important in the feeding program were using stockpiled forages, planting winter annuals (or cool season grasses/crops for pasture situations) and using rotational grazing.

Commonly Asked Fertilizer Questions

Nationwide. Several common questions on fertilizer come up frequently. Below are some questions and answers gathered by Jay Johnson from Ohio in a fertilizer bulletin that may provide you with answers to some of your questions.

1. Some companies say a pound of nutrient is a pound of nutrient; others say method of application and product choice are important. Which is correct? As established by law, fertilizer is sold on an index of relative availability; this index is found on the label of each fertilizer product sold. As a result, if products which have the same quoted amount of nutrients are compared, one will find that the fertilizer products are agronomically equivalent in terms of crop response. Changing the method of application can improve the efficiency of a fertilizer. For example, banding a fertilizer close to the seed row has been shown to improve the uptake of nutrients contained in that fertilizer; however, the same improved efficiency can be gained through the banding of any of various fertilizer products.

2. Competition constantly interchanges availability and solubility. Please define these terms, and compare liquids to dry in both definitions. "Plant availability" is an indication of what quantity of nutrients in an applied fertilizer is able to be taken up by a crop under field conditions. "Water solubility" is the percent of nutrients that are dissolved by water. In a true liquid, 100 percent of the nutrients are dissolved. Fertilizers are sold on the basis of an index of relative availability. Based on this index, liquid and dry fertilizers supply equal quantities of nutrients for uptake.

3. Can you fertilize only for the crop planted or do you have to take "tie up of nutrients' into consideration? In general, crop removal alone is not a good index of fertilizer needs. Annual fertilizer recommendations are based on crop response data (the fertilizer needed to produce a particular crop under the specific conditions where the correlation research is conducted). Normally, if the fertilizer recommendation as based on crop response data is lower than that calculated from crop removal, we make a recommendation equal to crop removal so that the fertility level of the soil will not be depleted.

4. Should I apply most of my fertilizer broadcast or in the row for corn? Is there any difference in yield when fertilizing broadcast versus in-row? When selecting a fertility program, one should consider soil test levels. If the soil test levels of P and K are medium to low, a row application is usually more effective than a broadcast application. If soil fertility is high, then either method of application (row or broadcast) should be of equal value.

5. Even on high test soils we recommend some row fertilizer. Would this be used early or late in the season by corn plants? The nutrients from a row fertilizer are used relatively early in the season. Usually, roots are actively feeding in this fertilizer zone approximately 2-4 weeks after emergence.

6. How beneficial is banding (not row applied) versus broadcast applications? Research has shown that on low fertility soils there is a slight advantage to banding of immobile elements like phosphorus and potassium. Based on soil test results, few soils would be expected to show a benefit from banding of P and K fertilizers as compared to broadcast applications in maintenance programs.

7. How can I cut my fertilizer costs? When can I cut back on P and K? To determine the most efficient fertilizer program for agronomic crops, the user must consider both the amount of nutrients that his soil will supply and the overall yield potential of his soil. Soil tests and plant analyses are good indicators of the nutrient supplying power of a soil. Based on these indexes and the expected yield, a farmer should be able to make an intelligent, well informed decision about fertilizer inputs.

8. How best to fertilize economically in a crop rotation? In developing a fertility program for a crop rotation, one should determine the dominant fertilizer need for each crop of the rotation and then each year concentrate most heavily on that particular plant nutrient, being careful, however, not to neglect other nutrient requirements. For example, in the year that corn is grown, one must be sure there is adequate nitrogen present but at the same time not ignore P and K needs. With wheat, phosphorus needs should be satisfied first.

9. With medium soil test levels, can I fertilize every other year? If a soil test is medium to low, we recommend an annual application of both P and K to obtain maximum return on your fertilizer dollar.

10. Is it better to apply fertilizer at the time of planting wheat or put it all on in early winter?
P and K fertilizers should be applied at the time of seeding wheat. If these immobile nutrients are applied after planting, uptake can be hindered. The reason for this is that P and K will tend to remain above the rooting zone and thus will not be available for uptake.

11. Do blend fertilizers separate when spread with a 'spinner' type spreader?
With a "spinner" type spreader, the spread pattern that results depends on the size and the density of the materials that are being applied. Traditionally, there has tended to be a slight separation of blended fertilizers, with lighter materials not being spread in as wide a pattern as the heavier ones. In recent years, the fertilizer industry has tried to counteract this problem by changing the size of fertilizer particles so that all would be spread with approximately equal patterns. As a result, there is now little separation of blend fertilizers when spinner type spreaders are employed.

Remember to mark your calendar for the upcoming New Mexico crop conferences: Southwest Hay Conference is January 18-19, 2007 at the Ruidoso Convention Center; the Crop Production Conference is January 22-23, 2007 at the Inn of the Mountain Gods; and, the NM Cotton Conference is January 24, 2007 at the Ruidoso Convention Center in Ruidoso,

Fertilizer Questions (continued)

12. Are liquid fertilizers equal to or better than dry fertilizers? Are liquid fertilizers more available than granular fertilizers?
Based on equivalent rates of applied nutrients, research has shown that liquid and dry fertilizers are of equal value to most agronomic crops. There is no difference in availability between liquid and dry fertilizers.

13. When suspension grade fertilizers are used, the entire fertilizer needs (NPK) of the crop can be applied in one trip across the field, along with herbicides. Economically, this is equal to or better than dry. Are we seeing a growth in the use of suspension grade fertilizers? Agronomically, is it a sound practice? There appears to be relatively little change in the amount of fluid fertilizer that is being sold as compared to the total amount of fertilizer marketed. The percentage of the fluid fertilizer sales that are suspension grade fertilizers (as opposed to true liquids) is increasing only slightly in the Midwest. The growth of suspension grade fertilizers will probably continue to be slow in some northern areas as they are relatively unstable in cool climates. (These products must be used soon after purchase; if they are not, they tend to coagulate.) The short storage time of suspension grade fertilizers makes them unattractive to many farmers. As long as fertilizer nutrients are applied in an appropriate manner, there is no difference in crop response whether the product which is used is dry, liquid, or a suspension. These three forms of fertilizer are of equal value to a crop.

14. Does foliar application of liquid fertilizer do me any good?
Foliar application of liquid fertilizer has been found to be an effective method of correcting nutrient deficiencies in perennial crops like fruit trees (apples, peaches, etc.). For annual crops, however, there is little evidence that foliar application of liquid fertilizer is preferable to soil applied. An exception to this is that for soybeans and alfalfa foliar applied Mn tends to be more effective than soil application.

Grazing Alfalfa Just Needs Management

Statewide. Use of grazing-tolerant alfalfa cultivars can benefit an operation with continuous beef cattle stocking if the alfalfa variety selection is chosen with care. A research study was conducted to test survival and performance of alfalfa with continuous stocking against the alfalfa's parental cultivar germplasms at two locations under one of the following three management conditions:

1. grazing to close stubble heights (5 to 7 centimeters) with continuous stocking;
2. grazing to close stubble heights (5 to 7 centimeters) with rotational stocking (7 days grazed, 28 days rest);
3. and standard hay harvest treatment.

Plant survival was similar (52 to 53 percent) for the rotational stocking and hay harvest treatments, showing better survival over the continuously stocked treatment (38 percent) at one location. At the second location, stand survival improved as management changed from continuous stocking (24 percent) to rotational stocking (46 percent) to hay harvest management (63 percent). At both locations, those alfalfa varieties that were earmarked as grazing-tolerant demonstrated higher plant survival rates. Dry matter yield of the grazing-tolerant entries were no different or were higher during the first year of the testing.

From this work, it appears that cultivars selected with continuous stocking perform well in any management situation. However, grazing-tolerant alfalfa may be better adapted to environmental differences such as soils, climate, inherent pests and other making careful selection of variety even more important under intense stocking, especially when continuously stocked.

Ask your alfalfa seed salesperson more information before purchasing alfalfa seed for spring seeding. Pay particular attention to disease tolerance and the potential for grazing-tolerance if you plan to use your pasture more intensely.

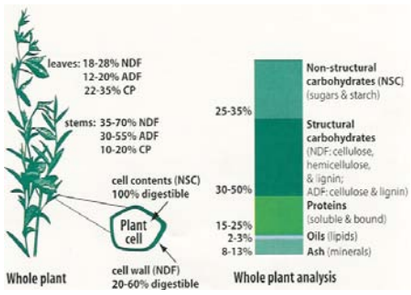
The information was provided from a production paper: Bouton, J.H. and R.N. Gates. 2003. Grazing-tolerant alfalfa cultivars perform well under rotational stocking and hay management. Agron. J. 95: 1461-1464.

Mark your calendar for December 11-13, 2006 for the 2006 Western Alfalfa & Forage Conference in Reno, Nevada at John Ascuags's Nugget (Sparks).

Feed Value for Best Forage

Determining feed crops to purchase should be based on need, profitability and management schemes for animal improvement that is desired. Feed composition varies by plant species, stage of growth and environmental conditions. Some of the common terms used in classifying and describing forages include:

a. DM % AF is the percent dry matter as fed.
b. NDF % DM is the neutral detergent fiber concentration as a percentage of dry matter.
c. Lignin % NDF is the lignin concentration as a percentage of neutral detergent fiber content.
d. TDN % DM is the total digestible nutrient concentration as a percentage of dry matter.
e. ME Mcal/kg is the metabolizable energy content.
f. NEma Mcal/kg is the net energy content of feed for maintenance.
g. NEga Mcal/kg is the net energy content of feed for grain.
h. CP % DM is the crude protein concentration as a percentage of dry matter.
i. CIP % CP is the degraded intake protein concentration as a percentage of crude protein content.
j. UIP % CP is the ungraded intake protein concentration as a percentage of crude protein content.
k. SolP % CP is the soluble protein concentration as a percentage of crude protein content.
l. NPN % SolP is the nonprotein nitrogen concentration as a percentage of soluble protein content.
m. ADFIP % CP is the acid detergent insoluble protein concentration as a percentage of crude protein content.
n. Starch % NSC is the starch concentration as a percentage of nonstructural carbohydrate content.
o. Fat % DM is the fat concentration as a percentage of dry matter.
p. Ash % DM is the ash concentration as a percentage of dry matter.



Grains/By-Product Feeds (common name)	DM %AF	NDF %DM	Lignin %NDF	TDN %DM	ME Mcal/kg	NE* Mcal/kg	CP %DM	Fat %DM
Bahiagrass hay	90	72.0	11.11	51	1.84	0.45	8.20	1.60
Bermudagrass late veg.	91	76.6	8.57	49	1.77	0.39	7.80	2.70
Brome hay prebloom	88	55.0	7.69	60	2.17	0.74	16.00	2.60
Fescue K31 hay	91	62.20	6.35	61	2.21	0.77	15.00	5.50
Fescue K31 full bloom	91	67.00	7.46	58	2.10	0.68	12.90	5.30
Orchardgrass hay early bloom	89	59.60	7.70	65	2.35	0.88	12.80	2.90
Ryegrass hay	88	41.00	4.88	64	2.31	0.86	8.60	2.20
Sorghum-sudan hay-non-BMR	91	66.00	6.06	56	2.03	0.62	11.30	1.80
Sorghum-sudan pasture	18	55.00	5.45	65	2.35	0.88	16.80	3.90
Sorghum-sudan silage	28	68.00	7.04	55	1.99	0.58	10.80	2.80
Timothy hay mid bloom	89	63.70	7.46	57	2.06	0.64	9.70	2.70
Alfalfa hay early-vegetative	91	33.00	18.18	66	2.39	0.91	30.00	4.00
Alfalfa hay late-vegetative	91	37.00	18.92	63	2.28	0.83	27.00	3.80
Alfalfa hay early bloom	91	39.30	20.00	60	2.17	0.74	25.00	9.20
Alfalfa hay mid bloom	91	47.10	22.73	58	2.10	0.68	22.00	2.60
Alfalfa hay late bloom	91	53.00	23.02	52	1.88	0.49	17.00	1.50
Alfalfa silage early bloom	35	43.00	23.26	63	2.28	0.83	19.50	3.70
Alfalfa silage full bloom	40	51.00	23.53	55	1.99	0.58	16.00	2.70
Clover Ladino hay	89	36.00	19.44	60	2.17	0.74	22.40	2.70
Vetch hay	89	48.00	16.67	57	2.06	0.64	20.80	3.00
Barley silage	39	56.80	5.44	60	2.17	0.74	1.90	2.92
Barley straw	91	72.50	13.75	40	1.45	0.08	4.40	1.90
Corn cobs ground	90	87.00	7.78	50	1.81	0.42	2.80	0.60
Corn silage 25% grain	29	52.00	9.62	68	2.46	0.97	8.30	2.10
Corn silage 35% grain	33	46.00	8.70	69	2.49	1.00	8.60	2.60
Corn silage 50% grain	35	41.00	7.00	75	2.71	1.16	8.00	3.50
Corn silage immature-no ears	25	60.00	5.00	65	2.35	0.88	9.00	3.10
Corn silage stalklage	30	68.00	10.29	55	1.99	0.58	6.30	2.10
Corn stalks grazing	50	65.00	10.00	66	2.38	0.91	6.50	2.10
Oat silage dough	36	58.10	16.07	59	2.13	0.71	12.70	3.12
Oat straw	92	74.40	20.00	45	1.63	0.25	4.40	2.22
Oat hay	91	63.00	9.09	53	1.92	0.52	9.50	2.40
Grain sorghum silage	30	60.80	9.38	60	2.17	0.74	9.39	2.64
Wheat silage dough	35	60.70	14.81	57	2.06	0.64	12.50	2.50
Wheat straw	89	78.90	16.47	41	1.48	0.11	3.50	2.00
Barley grain heavy	88	18.10	10.53	84	3.04	1.40	13.20	2.20
Corn grain cracked	88	10.80	2.22	90	3.25	1.55	9.80	4.06
Corn ground grain-56#/bu	88	9.00	2.22	88	3.18	1.50	9.80	4.30
Corn grain flaked	86	9.00	2.22	93	3.36	1.62	9.80	4.30
Cottonseed black whole	92	40.00	37.50	95	3.43	1.67	23.00	17.50
Cottonseed high lint	92	51.60	34.04	90	3.25	1.55	24.00	17.50
Cottonseed meal-sol 41%CP	92	28.90	23.08	75	2.71	1.16	46.10	3.15
Oats 38 #/bu	89	29.30	9.38	77	2.78	1.22	13.60	5.20
Rye grain	88	19.00	5.30	84	3.04	1.40	13.80	1.70
Sorghum, dry grain	89	13.30	6.09	76	2.75	1.19	11.60	3.10
Sorghum, rolled grain	90	16.10	6.09	82	2.96	1.35	12.60	3.03
Sorghum, steam flaked	70	23.00	6.09	88	3.18	1.50	12.00	3.10
Wheat, ground	89	11.80	6.25	88	3.18	1.50	14.20	2.34
Wheat, middlings	89	35.00	5.95	83	3.00	1.37	18.40	3.20
Peanut meal	92	14.00	10.00	77	2.78	1.22	34.20	5.50
Soybean meal, 49	90	7.79	2.50	87	3.15	1.47	49.90	1.60

*Use NEga Mcal/kg only for net energy content of feed for gain—not the estimate for maintenance with this table.

Knowledge of the general composition of feeds important when deciding on forage to use. Although composition will vary based on environment and stage of growth some generalized feed analyses that can be used to make a preliminary assessment are shown above (based on the Nutrient Requirements of Beef Cattle from the National Research Council, 7th revised edition, 1996).

Cottonseed for Livestock Energy

Statewide. Dairy producers have recognized the high energy and the high fiber that whole cottonseed can provide in the diet for cows. Research out of Ohio documented whole cottonseed as one of the most effective fiber source substitutes for forage. While not surpassing some of the forages such as alfalfa, whole cottonseed is an excellent high-energy feed that can be important in times of dry weather and tight forage supplies. Mixed with other, less nutrient-dense feeds, whole cottonseed can produce a balanced ration. The neutral detergent fiber (NDF) when substituted for forage helped reduce passage rate, stimulated the cows to chew their cud and helped to clear the rumen mass for room for the next feeding.

The research indicates that the linters and other physical and chemical properties of the seed allowed whole cottonseed to act as a substitute for long forage particles. The study further indicates that dairy producers should feed cows in their first month of lactation with adequate amounts of long or coarsely chopped forage to prevent metabolic problems and to help in the transition in feeding. Tight feeding management practices should be maintained in order to monitor cattle for rumen acidosis when first substituting the whole cottonseed for forages.

Additional research concurs that whole cottonseed is an effective fiber source. Whole cottonseed helps maintain rumination and ruminal pH, which helps in maintaining or increasing milk fat. In improved feeding efficiency trials, gelatinized starch coatings on the seed have been shown to aid in product fermentation and can even improve the cottonseed as additional microbial protein appears to be available when the feed product is processing through the cow's small intestine. For more information on cottonseed as a fiber source, contact cottonseed research and marketing, Cotton Incorporated, at 1-800-334-5868.

Current Crop Conditions

Statewide. With rains finally settled for now, last of the hay cuts in southern New Mexico and cotton harvest is proceeding at a quick pace. Last cuts of alfalfa does have limited quantity due to cool night time temperatures slowing growth but much of the hay is coming out good. With demands for hay through all the surrounding states, New Mexico hay prices have increased even before winter. Remember to check out the website for the NM Hay Association if you are interested in supplies. Links on the site will provide both local producers as well as a link to the nationwide internet hay suppliers. Cotton harvest is mixed as some areas sustained hail that limited production but in other areas exceptional yields are being found. With good quality water, the Deming area under drip irrigation is showing some 4 bale per acre Pima and 5 bale per acre Upland supplies. Be sure to come to the annual crop conferences this coming January to catch up on all the latest improvements and information. The Southwest Hay Show will be in Ruidoso, NM at the Ruidoso Convention Center on January 18-19. The next week, the Crop Production Conference will be held at the Inn of the Mountain Gods in Ruidoso on January 22-23, 2007. This will be followed by the NM Cotton Conference on January 24, 2007 at the Ruidoso Convention Center. In the next few newsletters, more information on the conferences as well as the agendas will be posted. Information on signing up for the conferences will also be included. With the season winding down, final tillage operations as well as weed clean-up around the farm and ranch is occurring. With ideas of a possible wetter than normal winter in store for us according to some of the climate forecasts, weed control is essential now to prevent excessively problems later in colder weather when control may be more difficult. Weeds have to be actively growing in order to optimize weed control chemically. Consider final fall fertilizer needs now that dry weather has allowed a window of opportunity to open for excellent operations. Consider input costs for this next year as predictions run the span of next spring still seeing high fertilizer costs to some lessening of these costs. So, soil sample and consider true maintenance needs for a successful cropping year in 2007. Also, now that some of the improved pastures have seen some relief from rain additions, be sure to soil test pastures for improving your forage over winter and into the spring.

The New Mexico Hay Association is one point at which to determine available hay or hay requests. The website is at **http://www.nmhay.com** and can be accessed easily online. You may also ask for additional information from the site by emailing your questions to the Association at info@nmhay.com .

_____, **Dr. Denise McWilliams, 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.**

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