



TEXAS COUNTY AG NEWSLETTER

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Consumer Acceptance and Value of Domestic, Canadian, and Australian Grass-Fed Beef

by Britt Hicks, Ph.D., Area Extension Livestock Specialist
Oklahoma Panhandle Research & Extension Center

Nebraska researchers used 24 taste panels of 273 consumers in Denver and Chicago to determine whether there were sensory and value differences among US consumers for grass-fed Australian, grain-fed Canadian (generally fed barley-based diets), and domestic, corn-fed beef. Two pairs of strip loin steaks (1-inch thick steaks) were evaluated for flavor, juiciness, tenderness, and overall acceptability in each taste panel using an eight-point scale (1= extremely undesirable to 8= extremely desirable). One pair consisted of an Australian grass-fed steak and a domestic steak, whereas, the other pair included Canadian and domestic steaks. The pairs were matched to similar Warner-Bratzler shear values (measure of tenderness) and marbling scores to decrease variation associated with tenderness and juiciness. However, the aging period (time from the vacuum-packaging date to the date the steaks were frozen for storage) varied between 8 to 11 days for domestic beef, 24 days for Canadian beef, and 67 to 73 days for Australian beef. A silent, sealed bid auction was conducted among taste panelists to determine the value of each pair of steaks.

Consumers gave significantly higher scores for flavor, juiciness, tenderness, and overall acceptability for domestic beef compared with Australian beef. Consumers placed an average value of \$2.48/lb for Australian steaks versus \$3.68/lb for domestic steaks. Consumers gave significantly higher scores for flavor, tenderness, and overall acceptability for domes-

tic steaks compared with Canadian steaks and tended to score juiciness higher for domestic steaks. The differences in scores between domestic and Canadian samples were not as great as between domestic and Australian samples (about 1/3 as much). Consumers placed an average value of \$3.95/lb for domestic steaks and \$3.75/lb for Canadian steaks.

Although the majority of consumers preferred the flavor (based on overall acceptability score) of domestic steaks compared to Australian or Canadian steaks, some consumers preferred the flavor of Australian or Canadian steaks. More consumers favored domestic (64.5%) versus Australian (19.0%) steaks with the remaining consumers expressing no preference (16.5%). More consumers preferred domestic (44%) versus Canadian (29.3%) steaks with 26.7% showing no preference. Consumers were willing to pay more for their preference. Consumers who preferred Australian over domestic steaks paid \$1.38/lb more and consumers who favored Canadian over domestic steaks paid \$1.37/lb more. In contrast, consumers who preferred domestic over Australian steaks paid \$2.23/lb more and consumers paid \$1.67/lb more for domestic versus Canadian Steaks.

In summary, in this study, the majority of US consumers seemed to prefer the taste of domestic, corn-fed beef over that of Canadian grain-fed or Australian grass-fed beef.

BEEF CATTLE RESEARCH TRIAL

Dr. Britt Hicks, OPREC Area Extension Livestock Specialist has currently started into a cattle research trial that will evaluate several different feed treatments using wet distillers grain.

This trial will be run in the 30 bull test pens at Oklahoma Panhandle State University (6-7 head/pen). Hitch Enterprises will be providing the cattle for the trial. The project is a joint effort between OSU, OPSU and Hitch Enterprises. The trial will run 150 days depending on the initial weight of the cattle we get.

The following feed treatments (dry matter basis) will be evaluated:

1. Steam flaked corn control diet (85% corn, 10% alfalfa, 5% supplement)
2. 10% dried distiller's grains with solubles replacing corn (DDGS is being donated by ADM)
3. 10% WDGS
4. 20% WDGS
5. 30% WDGS

In addition to the standard feedlot performance data and carcass data, strip loins will be collected at slaughter and shipped to Stillwater for further analysis (fatty acid profile, simulated retail display, shear force, and taste panel).

At some later date this fall or early next year a field day will be held to present the results of the trials.

WHEAT AND CATTLE PROGRAM

Producers that raise wheat and cattle will want to attend the Wheat/Cattle Program on August 2, 2007 at the Hooker Community Center at 7:00 p.m.

This year Rick Kochenower, OPREC Agronomist; Britt Hicks, OPREC Livestock Specialist; and Hailin Zhang, OSU Extension Soil Specialist will cover topics that include wheat variety trial results, progress on current wet distillers grain trials at Oklahoma Panhandle Research and Extension Center and other current cattle management topics. Soil fertility will also be addressed, along with the results of the free soil tests back to participating producers.

Free Soil Test

A free soil test will be offered to area wheat producers from June 15th to August 1st. Producers submitting samples will be able to get soil analysis at the Texas County Wheat and Stocker Cattle Meeting in early August. Top soil and subsoil will be required for each sample submitted. Producers will be limited to 5 samples (top soil 0-6" & a sub soil 6-24" would be considered one sample). A short survey about farmers soil testing practices will be completed as part of the educational meeting. Surface soil samples are analyzed for pH, NO₃-N, available P index, and available K index. Subsurface soil samples are analyzed for NO₃-N only. For further information contact Steve at Texas County OSU Extension Service, 338-7300.



CATTLE MARKET FACTORS TO WATCH THIS SUMMER

by Derrell S. Peel

The recent fed cattle price drop from the mid \$90s to the low \$90s occurred sooner than expected and raises questions about whether markets are merely weakening seasonally or as a result of something more fundamental. Feeder cattle markets remain generally strong and, while no clear threats can be identified at this time, there is a lengthy list of factors that could inject volatility into cattle markets in the coming weeks and months.

The recent weakness in fed cattle prices is tied to a corresponding slump in boxed beef prices, the latest in a series of rollercoaster of increases and decreases in wholesale beef prices this year. The current drop in boxed beef price raises questions about **beef demand** going into the summer. Memorial Day holiday beef sales appear to have been rather lackluster. Sluggish macroeconomic indicators, high gas prices and weaker pork exports are likely contributing to beef demand pressure. Anticipated increases in broiler production in the second half of the year will add additional pressure to meat supplies.

Fundamental to the general strength in cattle prices are cyclically low cattle inventories, extended this year by drought disrupted herd expansion in 2006. The question of the extent to which herd expansion resumes this year will have implications beyond this year but also immediately as renewed heifer retention will further limit feeder cattle supplies in 2007. Forage conditions are significantly improved in the Southern and Northern Plains this year but the **drought** has emerged as a major factor in the Southeast. While cow herd expansion has clearly resumed in the center part of the country, offsetting liquidation in the Southeast may temper herd expansion once again. Overall levels of beef production depend on cattle supplies and also on **carcass weights**. Carcass weights have been lower since severe winter weather reduced feedlot production in January and February and Carcass weights are expected to remain below year ago levels due to the continuing impacts of high feed prices.

Cattle and other livestock industries continue to keep a watchful eye on feed markets. Although corn crop conditions are quite good at this time, feed prices are expected to continue impacting cattle production. The next month or six weeks will be critical in determining the level of **corn production** this year. There is considerable uncertainty about growth in ethanol demand for corn and continued adjustments in crop production in coming years.

International trade in beef remains a source of both promise and frustration. Access to the South Korean market continues to develop in fits and starts. Recent errors in shipments to Korea highlight the challenges of implementing detailed trade agreements for both governments and trading partners in both countries. Japan has so far resisted efforts to further liberalize beef trade requirements with the U.S. Plans are underway to address restrictions with Canada with respect to animals and beef from animals over 30 months of age. These changes are not expected to have major market impacts but uncertainty remains over the details of the new rules, the timing of rule changes and legal challenges that may result.

Lastly, there are the continuing discussions for the new **farm bill**. Crop farming and energy related discussions may have significant implications for animal agriculture. Additionally, there are numerous proposals that will have direct impacts on animal agriculture including mandatory country of origin labeling, animal ID, and restrictions on cattle ownership and marketing arrangements. Both the timing and details of farm bill legislation are uncertain at this time.

TEXAS A & M: PANHANDLE PEST REPORT

by: Carl Patrick, Texas A&M Extension Entomologist, Amarillo, Texas

June 14, 2007

General Situation

Overall crop situation looks good. Wheat harvest is just getting underway. Wheat head armyworm appears to have had some impact. Moths (millers) are a nuisance for homeowners. Watch for spider mites in edges of corn fields. Thrips, aphids and saltmarsh caterpillars are reported in cotton.



Wheat

Harvest of what appears to be an excellent wheat crop is just getting underway. Some of the early loads delivered to local elevators are reporting insect damage kernels (IDK). The damage likely is from wheat head armyworms. During recent wheat field days, larvae were observed in a few fields and large numbers of moths have been captured in pheromone traps the past few weeks. Scott Strawn, CEA-AG/NR in Ochiltree County, reported significant infestations in some fields in his area. Wheat head armyworm can be found almost any year; however, infestations are highly variable but usually very light and isolated. Damage usually goes unnoticed, but with early harvest reports of significant IDK, this year may be different. There are no established economic thresholds for this pest. Control of the wheat head armyworm at this point is likely not justified, for damage is likely already done, and pre-harvest interval (phi) on any labeled insecticide would likely prohibit application.

Homeowners throughout the Texas Panhandle are reporting nuisance levels of moths (millers). Several species of moths have been identified, but most are army cutworm. Larval stages of army cutworm develop in area wheat and alfalfa fields during fall and winter occasionally reaching economically damaging levels. These larvae complete their feeding phase late March to early April and then pupate. Moths emerge from pupae a few weeks later. Moths in general are attracted to lights, and the army cutworm moth is no exception. Insecticidal control of these moths is not practical,

turning off lights around one's home to reduce attracting moths may be the best advice. Take some comfort in the fact that army cutworm moths will migrate from the area within the next few weeks; however, there likely will be a few moths of various species around through summer and early fall.

Corn



Spider mite infestations quite often develop in edges of corn fields that are next to wheat. Wheat hosts spider mites through winter and spring, as wheat dries down, spider mites move into contiguous areas which can be other crops. Corn and sorghum are excellent hosts for these spider mites, so monitor these areas for spider mite development. Good beneficial populations will often hold these early invasions in check.

Cotton

Since planting, cotton has suffered under not the best growing conditions. Cool temperatures, heavy rains and high winds have taken their toll on area stands. Insect pest problems exist but are not major problems at this time.

Thrips infestations are variable, but not as bad as 2006. Reports indicate that seed treatments and Temik® are holding up. Expect no more than 3 to 4 weeks control out of these insecticides. Foliar insecticide applications may be required to protect cotton after that point. An average of 1 thrips per true leaf is considered the economic threshold.

Cotton aphids are present in some fields but are not considered a problem at this time.

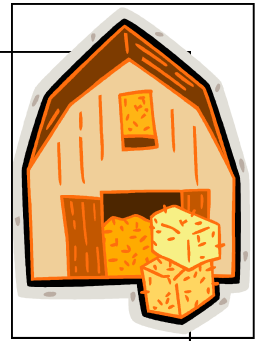
Saltmarsh caterpillars are present in edges of some fields. There is potential for these very fuzzy caterpillars to reduce stand. If this appears to be occurring, treating field margins may be in order.

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Avoiding Hay Fires

Raymond L. Huhnke
Extension Agricultural Engineer
Oklahoma State University



Spring and early summer cuttings often present the greatest risks for hay fires because of the difficulties of drying hay before baling. No matter the time of year, if rain is in the forecast, hay producers are often tempted to bale at a little higher moisture content to avoid weather damage. If hay is baled too wet and packed too tightly into storage, severe heating can occur causing significant dry matter and quality losses or worse—a hay fire.

Heating results from plant respiration and microbial activity. It can occur in baled hay at moisture contents as low as about 13%. Therefore, heating is a natural occurrence with temperatures reaching over 120°F even in hay baled at safe moisture contents. If excess moisture is present, heat resistant fungi become active which can drive the temperature to over 150°F. Above about 170°F, the microorganism's die, but heat-producing chemical reactions continue to drive temperatures up. Between 450°F and 550°F, spontaneous combustion can occur if the material is exposed to air.

Hay fires can occur over two weeks after the hay is placed into storage. Generally, temperatures below 140°F indicate no particular heating problem. Check the hay daily to see if temperatures continue to rise. Temperature readings between 149°F and 170°F provide no clear indication of pending problems. Check the temperature every few hours to monitor changes. If the temperature is above 180°F, call the fire department. **DO NOT MOVE THE HAY UNTIL THE FIRE DEPARTMENT IS PRESENT.** When smoldering hay is exposed to air, it can undergo spontaneous combustion. It is imperative that the fire department be present before you attempt to move any hay.

If it is not possible to measure temperature with an instrument, use a long steel rod as a probe. Drive the rod into the inner stack and leave it for at least 15 minutes. If the rod is too hot to handle, the temperature inside the stack is probably above 120°F and caution is warranted. Never stand on top of a stack you suspect may be heating because smoldering hay can create a cavity or pocket that often cannot be detected from the top of the stack.

Preventing hay fires begins at the time the hay is baled. Optimum moisture content for baling depends on bale size. For small square bales, the moisture content should be no more than about 20% without preservatives. During warm, moist air conditions, reduce the moisture content when baling small squares to 18%. The upper limit for large packages, including round bales, is about 16% to avoid taking special precautions to prevent excessive heating. Round bale moisture content can be increased to about 20%, if bales are stored outside and unprotected.

Bale density also affects heating. The denser the package, the greater the resistance for heat to move through the hay. For round bales, consider reducing the bale diameter if baling wet hay. If you have a fixed-chamber baler, consider not wrapping the outer layer as tightly as usual to reduce bale density.

If you bale “wet” hay, it is a good practice to leave round bales outside for at least a week before putting them into barn storage. If you must place bales immediately into the barn, stack bales loosely to allow plenty of air circulation. For large packages, arrange the bales loosely in a single layer for at least two weeks before stacking tightly. Granted, this takes more time and labor, but the risk of a fire is greatly reduced.

RULES TO LIVE BY!
DRINK, STEAL, SWEAR & LIE
Listen carefully & live by these four rules!

- 1. Drink from the “everlasting cup” every day.**
- 2. Steal a moment to help someone that is in worse shape than you are.**
- 3. Swear that you will be a better person today than yesterday.**
- 4. And last, when you lie down at night, thank God you live in America and have freedom!**

ENJOY YOUR FREEDOM 4TH HOLIDAY!

Steve Kraich, Ag/4-H Educator
Texas County OSU Extension Service

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