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FOCUS ON HERD SIZE: SOUTH DAKOTA BEEF CATTLE



by
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and
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South Dakota is a major beef cattle producing state, ranking fifth nationally behind Texas, Missouri, Oklahoma, and Nebraska in "beef cows that calve." During the past three years, the number of beef cows calving in the state has averaged 1.51 million.

The purpose of this newsletter issue is to present an overview of results from a Nov-Dec 1991 survey of cow-calf, breeding, feeding, and health management practices of South Dakota beef cattle producers. Attention is drawn to instances in which management practices differ between large and small herds in the state.

Of the 62 cow-calf producers responding to the survey, 40 have cow herds east of the Missouri and 21 west of the Missouri. Herd sizes range from 15 to 500 and average 122 cows each. Thirty one producers have fewer than 100 cows (hereafter termed "small" herds) and 23 have 100 or more cows ("large" herds). Herd sizes in the East average 78 cows each and in the West 219 cows. [Because one producer did not indicate his/her county and eight producers did not indicate their herd size, numbers of herds by location and size do not total to 62.]

Cow-calf management

For every 100 cows in the surveyed producers' herds, an average of 13 heifer calves are retained as replacements. The average for large herds is 16 and that for small herds is 11.

Relative to the number of cows determined/believed to be pregnant in the
(Continued on page 2)

WINTER GRAIN MARKET POTENTIAL



by
Richard Shane
Grain Marketing Specialist

All changes in the December versus November USDA Crop Production and Supply-Demand reports were small but supportive to the grain market complex. Corn, soybean, and wheat exports were raised marginally with corresponding decreases in surplus stocks for the 92/93 marketing year. Price changes from the report were minimal with corn getting its two cents worth the day after the report was released.

FSU Credit

No large changes in these December reports lead me to believe that the U.S. government will continue to ship grain to the Former Soviet Union (FSU) even though the FSU has defaulted on around 30 million dollars in commercial bank loans. Future U.S. bank loans are in jeopardy but Russia is working with foreign governments to reschedule debt. The U.S. government is committed to assist in the transition to a market economy in the FSU. To accomplish this goal, the people of FSU must be fed so even if grain sales financed with loans stop, some type of aid is expected.

U.S. Crop Progress

The U.S. corn crop is 83 percent harvested as of December 12, 1992. Weather forecasts suggest that good harvest weather the following week will allow corn harvest to reach 90 percent. Field losses will be minimal but potentially large enough to stop the record crop from growing any larger. The slow harvest pace can be credited with holding December corn futures above \$2.00 per bushel with spillover support into other grain markets.

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(Focus on Herd ... cont'd from p.1)

fall, producers report an average "typical" weaned calf percentage of 94%. The corresponding computed weaned calf percentage for 1991 is 90%. Data were not reported in sufficient detail to enable computation of a weaned calf percentage based on the number of cows "exposed" plus summer and fall cow inventory changes.

The average age for weaning calves is 7.2 mo. Average weaning weights for steer and heifer calves are 538 lb. and 501 lb., respectively. Weaning weights for large herds are about 4% higher than for small herds.

The ages of calves at castration, dehorning, and branding vary much among producers. They average 3.4, 4.6, and 4.6 mo., respectively. Calves in large herds are considerably younger than those in small herds when these events take place.

Breeding management

In selecting herd sires to mate to mature cows, producers place greatest emphasis on expected weaning weights, followed in order by "correct" body confirmation, reproductive performance, sound feet and legs, transmission of milk production to daughters, and disease resistance.

Sixty three percent of producers pregnancy check their cows, 48% fertility test their bulls, 21% flush their cows prior to the breeding season, 15% production test their cows, and 5% use hormones to control breeding seasons.

The average starting dates of the breeding season for mature cows and replacement heifers are May 29th and May 23rd, respectively. These dates are 23-37 days earlier for large than small herds. The average lengths of breeding season for mature cows and replacement heifers are 77 and 72 days, respectively. The lengths of season are 14-22 days shorter for large than small herds.

Feeding management

Of the total forages consumed by responding producers' beef cow herds, the percentages of estimated dry matter intake from different sources are as follows: grazed pasture, 55%; harvested hay, 28%;

corn silage, 10%; crop residues, 6%; and sorghum silage, 1%. Producers with small herds depend more heavily on grazing pasture while producers with small herds use more corn silage and crop residues. This would be expected as most large herds are found in the west where the major use of land is either wheat production or pasture. In the east, where most small herds are located, producers have more access to crop residues and a lower cost for corn silage.

Eighty one percent of producers report that their cow herds graze native permanent pasture, 56% graze corn stalks, 44% graze improved permanent pasture, and 30% graze small grain residues. A much higher percentage of producers with small than large herds graze corn stalks.

The average annual lengths of grazing season for various forages are as follows: native permanent pasture, 177 days; improved permanent pasture, 115 days; corn stalks, 53 days; and small grain residues, 18 days. Annual grazing seasons for producers with large herds are 41-43% longer for native permanent pasture and corn stalks than for producers with small herds.

Average reported stocking rates for native and improved permanent pasture are 8.7 and 3.7 acres per cow, respectively. Average acreages per cow for native permanent pasture are considerably higher for producers with large than small herds. One reason is that large herds tend to be in the west where land productivity is generally lower.

Continuous grazing is the most common reported grazing management system, followed by deferred rotation, rest-rotation, complimentary rotation, and strip-grazing. Deferred grazing is far more common and continuous grazing is far less common with large than small herds.

Health management

Ninety two percent of responding producers use antibiotics with their cow herds. By far the most common manner of using the antibiotics is treating specific illnesses/injuries that arise with individual animals, followed by treating groups of animals at a particular age to prevent the onset of specific diseases

(e.g., scours) and routinely feeding low levels of antibiotics (subtherapeutically) in creep feed. Treating groups of animals to prevent the onset of specific diseases is more common for producers with large than small herds.

Between 92% and 98% of producers (a) use insecticides/fumigants and parasiticides and (b) vaccinate for Brucellosis, blackleg, and IBR-BVD-PI3. About 77% vaccinate for calf scours. Producers with large herds more commonly vaccinate for Brucellosis, blackleg, and calf scours and use parasiticides than do producers with small herds.

About 85% of producers have facilities for segregating sick or injured animals; 76% provide special protection to their beef herds from snow, mud, wind, heat, and other potential climate-related problems; and 72% provide special care/facilities for cows when they calve.

By far the most important sources of water for cattle are ground water (84% of producers) and man-made ponds (75%). Between 18% and 21% of producers also report obtaining water for their herds from each of (a) springs and artesian wells, (b) rivers and creeks, and (c) natural ponds. Producers with large herds rely more heavily on springs and artesian wells.

Water quantity problems are reported by (a) 11% of producers during years of average precipitation and water run-off and (b) 38% of producers during years of below-average (e.g., worst 2 of 10 years) water availability. Ten percent of producers report experiencing water quality problems.

More detailed findings

Readers interested in obtaining a full report of findings should request a copy of "cow-calf research report" from SDSU Economics, Box 504A, Brookings, S.D. 57007.



Holiday Greetings

(Winter Grain ... cont'd from p.1)
South American and South African
Crop Progress

The planting of soybean and corn crops in South America is approaching completion. Moisture conditions are good to excellent with the potential for above average crops. Current estimates call for slight production increases compared to 1992.

South African corn has emerged and has sufficient moisture. However, their severe drought in 1992 has left subsoil moisture depleted and timely rainfall will be required for the crop to develop. This suggests that the crop will be below average but it is very early in the crop year.

GATT Oilseed Agreement

The U.S. and European Community have reached an agreement concerning oilseed subsidies. The agreement calls for stabilization in EC oilseed acreage over the next several years. The agreement is supportive to oilseed prices in the near term but the EC countries must approve the agreement. French farmers are protesting vehemently against the agreement and are trying to enlist the support of Italian farmers to reject the agreement. France is the EC's largest oilseed producer and Italy is the EC's largest soybean producer. The remaining 10 EC countries support the agreement. If the agreement isn't ratified, a trade war is possible with U.S. retaliation through \$300 million in import taxes on EC products including white wine. The trade war could impact corn gluten feed and meal and soybean meal markets. Both the U.S. and EC would lose and are anxious to avoid a trade war.

Surplus Stocks

Ending stocks of grain for the 1992/93 marketing year are very tight for wheat at an estimated 498 million bushels, mid range for corn at 2.1 billion bushels and large for soybeans at 340 million bushels. Compared to the previous year wheat surplus stocks are steady, corn stocks nearly doubled and soybean stocks up 22 percent.

The wheat position is tight and adverse weather in winter wheat areas of



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Address Correction Requested

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the U.S. this winter could lead to significant price rallies. Currently, the U.S. winter wheat crop is mostly in good to excellent condition. Couple this with the zero set aside and increased acres and the chance for a record production year exists. A wide range of prices are possible. If price protection is desired at current levels to avoid the downside of a bumper crop, put options, minimum price contracts or synthetic puts will all give downside protection while leaving the top open. Locking in a price with futures would also protect against downside price risk but at the same time eliminate upside potential. The choice depends on the individual producers preferences and production cost structure.

The doubling of corn stocks has led to an expected price for 92/93 of \$2.05 per bushel, 30 cents lower than last year. If the U.S. average price for corn averages \$2.06 or less from Dec 15 through March 15, the Farmer Owned Reserve must be opened. A cap has been set on the FOR at 900 million bushels so sufficient free stocks should be available. However, most of the free stocks will be in farmer hands

and local basis levels may have to improve to induce delivery. The price outlook for corn is flat in the near term but promises enough of a spring rally to at least cover costs of storage.

Soybean stocks are large enough to keep price rallies contained. Costs of storage will most likely just be covered by spring rallies. If weather is a problem at planting time, large rallies are possible for soybeans and other crops. Be prepared to take advantage of spring weather markets to move out stored grain and begin pricing 1993 crop corn and soybeans.

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We have enjoyed publishing the COMMENTATOR for you this year and hope that it has been helpful and interesting to you. We look forward to working with you again in 1993.
