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Cornhusker Economics

Cooperative Extension

Institute of Agriculture & Natural Resources
Department of Agricultural Economics
University of Nebraska – Lincoln

Regulating Tributary Wells in the Republican River Basin

Market Report	Yr Ago	4 Wks Ago	7/2/04
<u>Livestock and Products,</u>			
<u>Weekly Average</u>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	\$74.80	\$90.14	\$87.39
Nebraska Feeder Steers, Med. & Large Frame, 750-800 lb	*	133.26	141.89
Nebraska Feeder Steers, Med. & Large Frame 550-600 lb	*	116.97	*
Choice Boxed Beef, 600-750 lb. Carcass	129.49	150.43	144.11
Western Corn Belt Base Hog Price Carcass, Negotiated	60.55	74.29	76.76
Feeder Pigs, National Direct 45 lbs, FOB	41.63	45.60	39.07
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean	64.56	80.46	81.11
Slaughter Lambs, Ch. & Pr., 90-160 lbs., Shorn, Midwest	*	97.50	100.50
National Carcass Lamb Cutout, FOB	237.25	233.01	229.99
<u>Crops,</u>			
<u>Daily Spot Prices</u>			
Wheat, No. 1, H.W. Omaha, bu	3.10	3.69	3.64
Corn, No. 2, Yellow Omaha, bu	2.13	2.84	2.38
Soybeans, No. 1, Yellow Omaha, bu	6.00	8.65	9.34
Grain Sorghum, No. 2, Yellow Columbus, cwt	*	4.55	3.63
Oats, No. 2, Heavy Minneapolis, MN, bu	1.52	1.64	1.56
<u>Hay</u>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton	*	115.00	172.50
Alfalfa, Large Rounds, Good Platte Valley, ton	*	62.50	62.50
Grass Hay, Large Rounds, Good Northeast Nebraska, ton	*	57.50	57.50
* No market.			

On December 16, 2002 Nebraska, Kansas and Colorado settled the Republican River Compact lawsuit. The settlement allowed each state to use the same amount of water as was originally established in the 1943 compact. However, the settlement requires Nebraska to treat “tributary” wells, i.e. wells the pumping of which affects the river’s flow, as part of Nebraska’s compact water use. Further, regulation of these tributary wells will be required in dry years to insure that Kansas receives the water to which it is entitled. It is important to note that the settlement does not use the term “tributary wells.” Instead the settlement refers to “alluvial” wells and “table land” wells. Alluvial wells are very close to the river or located generally within the river’s floodplain. Table land wells are essentially wells further away from the stream. I find it convenient to refer to both groups of wells as tributary wells. Computer modeling will ultimately identify tributary wells; but wells located within the areas subject to the ban on new well drilling are likely to be tributary wells.

The settlement differentiates between Nebraska surface irrigators and Nebraska ground water irrigators. The settlement establishes when surface water irrigators are shut off, but leaves the issue of how to deal with Nebraska ground water irrigators to Nebraska. How the shortages from tributary wells are dealt with will be established in an Integrated Management Plan (IMP) currently under development by the Nebraska Department of Natural Resources (DNR) and the Natural Resources Districts (NRDs) located within the Republican River Basin. Currently, the DNR and NRDs are working with Kansas, Colorado and the federal government to develop the ground water model that will identify the stream depletion effects occurring from tributary wells. NRDs are also certifying the number of acres irrigated from wells, and ground water irrigators are installing meters on their wells. Well drilling bans that had already been established by the Republican Basin NRDs were continued by LB962, the 2004 IMP legislation.

Water Short Year Administration. The first trigger for dry years affects only Nebraska surface water appropriators. When the Bostwick irrigation districts' water supply is less than 130,000 acre feet (AF), the DNR must shut off all surface water users between Harlan County Lake and Guide Rock that are junior (later in time) to April 1, 1948, the priority date of the Nebraska Courtland Canal (which also serves the Kansas Bostwick Irrigation District). The 130,000 AF trigger may be thought of as the surface water trigger. The second trigger in dry years is 119,000 AF, and is the ground water trigger (because the surface water users will have already been shut off under the 130,000 AF trigger). When the 119,000 AF trigger occurs, Nebraska will limit its consumptive water use above the Guide Rock Diversion Dam to its compact allocation based on a two or three-year running average. The DNR expects that Nebraska should be able to maintain most, if not all, of its existing irrigation uses in normal years. In water short years, however (which occur 25-33 percent of the time), Nebraska will be required to reduce consumptive use to stay in compact compliance. In other words, tributary ground water irrigation will need to be reduced in these years (remember that surface water irrigators will already have been shut off at this point). And this is what the Republican Basin IMP will decide – how tributary ground water uses will be reduced in water short years.

Integrated Management Plan. Under the settlement, compact compliance will first be measured in 2007, unless the drought continues, in which case compliance starts in 2006. This gives Nebraska time to develop the Republican Basin IMP to regulate tributary ground water users in dry years.

What ground water regulations might the IMP include? NRDs are authorized by NRS §46-739(1) to establish the following regulations: (1) ground water allocations (i.e. limits on how much ground water may be pumped); (2) rotation of ground water use (e.g. irrigating every other year, etc.); (3) well spacing; (4) well metering or other measuring devices; (5) reductions in irrigated acres; (6) limit or prevent (a) the expansion of currently irrigated acres or (b) increases in consumptive use from ground water withdrawals; (7) mandatory best management practices; (8) analysis of water or deep soils for fertilizer and chemical content; (9) mandatory educational requirements; (10) water quality monitoring and reporting; (11) NRD approval for (1) transfers of ground water off the land where the water is withdrawn or (2) transfers of NRD ground water allocations; and (12) incentive programs to reduce or stop water use.

Current NRD ground water regulations already implemented or in process include well metering, irrigated acre certification and the well drilling ban. Additional ground water regulations likely to be included in the IMP are (1) ground water allocation, (2) irrigated acre reduction, (3)

preventing (a) the expansion of irrigated acres, (b) increased consumptive use or both, and (4) incentive programs. It is possible that wells located near streams may be subject to additional requirements. Surface or ground water rights may be leased or purchased and retired. How is the IMP adopted? The IMP will be subject to at least one public hearing before it can be adopted by the NRDs and DNR. What if there is a disagreement between one or more NRDs and DNR regarding the IMP? Disagreements are resolved by the Integrated Water Review Board, a board appointed by the Governor.

What if Kansas doesn't think that the Nebraska IMP will protect Kansas water users under the compact? Or, conversely, what if Nebraska ground water users think the IMP is too restrictive? The settlement has conflict resolution provisions, but if those are not successful, Kansas (or unhappy NRDs, unhappy Nebraska ground water irrigators, etc.) can take Nebraska back to court. If that happens, Republican River water management decisions will ultimately be made by a federal judge instead of the DNR and NRDs. In such case, ground water irrigators would likely be treated as junior streamflow appropriators and simply prohibited from pumping at all during dry years unless they can replace the streamflow that their pumping depletes (as is common in Colorado). Nebraska ground water irrigators are likely to find the IMP vastly preferable to the federal judge alternative.

For additional information regarding the Republican River settlement and implementation, go to the DNR's website at:

<http://www.dnr.state.ne.us/legal/kansasvs.html>

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NOTE: The Market Report has been updated with new price series that better represent grain and live-stock prices in Nebraska. Several of the previously reported prices were outdated as a result of changes in USDA-AMS's Market News reports. If you have any questions please contact Nancy Pritchett, (402) 472-1789.