2013

Center Pivot Rental Rates With and Without Adjustments for Dryland Corners

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Cash rental rates on irrigated land have been on a strong upward trend in recent years, which has continued into 2013. Obviously, with heavy demand tenants have tended to bid aggressively. In an effort to obtain leases, the practice of bidding on a straight per acre rate for both the irrigated cropland and the dryland crop acres in the corners has become more common by tenants. After several years with normal or above rainfall, yield differentials on dryland corner acres were small enough to convince some tenants to bid essentially a per acre irrigated cash rent for the whole cropland parcel.

However, the severe drought conditions in 2012, which led to significantly-reduced yields on dryland cropland corners, seem to have altered that perspective. Our 2013 survey reporters noted this change in the Northeast, Central, East, South and Southeast reporting Agricultural Statistical Districts. They reported the greater frequency of tenants preferring to negotiate leases with specific per acre rates for the irrigated circle and the dryland corners. Irrigated cropland in these five districts represents about five million acres of Nebraska’s total 8.6 million irrigated acres (58%), with essentially 80 percent being under center pivot irrigation.

Reported 2013 rates, as seen in Table 1 (on next page), highlight these different rental rates for center pivot irrigated cropland in the Nebraska Agricultural Statistical Districts. When irrigated rates were specifically negotiated for only the center pivot irrigated portion, the per acre rates were $9 to $33 per acre higher than commonly reported in our conventional University of Nebraska-Lincoln cash rental series. The cash rates for the center pivot whole parcel average reflect the lower rental rates on the outer dryland corners of an 80 or 160 acre parcel, which a conventional pivot cannot reach. A relatively small difference between these two rates im-
Table 1. Reported Center Pivot Cash Rental Rates for Selected Districts in 2013

<table>
<thead>
<tr>
<th>Reported Survey Statistics</th>
<th>Agricultural Statistical District</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Northeast</td>
</tr>
<tr>
<td>Center Pivot Irrigated Only Parcel Average</td>
<td>397</td>
</tr>
<tr>
<td>Center Pivot Whole Parcel Average</td>
<td>379</td>
</tr>
<tr>
<td>Rental Difference</td>
<td>18</td>
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</tbody>
</table>

SOURCE: 2013 UNL Nebraska Farm Real Estate Market Developments Survey.

Table 2. Weighted Irrigated Whole Parcel Rental Rates and Bidding Differences for Selected Districts in 2013

<table>
<thead>
<tr>
<th>Reported Survey Statistics</th>
<th>Agricultural Statistical District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Northeast</td>
</tr>
<tr>
<td>Estimated Irrigated Whole Parcel Rental Rate</td>
<td>369</td>
</tr>
<tr>
<td>Rental Bidding Difference</td>
<td>10</td>
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</table>

SOURCE: 2013 UNL Nebraska Farm Real Estate Market Developments Survey.

plies the land tenant does not discount very much for the dryland corners when bidding on the parcel. In a highly competitive rental market bidders may not discount for the dryland corners as much in an effort to obtain the lease.

In analyzing the economics underlying these reported differences we assumed a typical 160 acre center pivot irrigated quarter with 132 acres irrigated by the pivot, with the remaining 28 acres (7 acres in each corner) not reached by the pivot and farmed as dryland cropland. We could then arrive at a weighted rental rate for the entire 160 acre parcel, using the reported per acre average rates for irrigated and dryland cropland from the 2013 UNL Nebraska Farm Real Estate Market Developments Survey.

The difference between the reported center pivot whole parcel averages of Table 1, and the weighted average rental rate per acre on an irrigated center pivot by Agricultural Statistical District are reported in Table 2. A large positive dollar per acre difference suggests tenants in the Northeast, Central and Southeast Districts may be overbidding when negotiating on a single rate for the entire parcel. In contrast, the small dollar difference in the East and South Districts would seem to indicate that tenants are not overbidding on whole parcel arrangements.

Several factors may account for the differences in the reported versus estimated rates on center pivot irrigated land across the regions. Rental markets in the Northeast District have been highly competitive in recent years. Producers in the Northeast and Central Districts may also have manure from animal feeding facilities which needs to be spread on high yielding ground, and the irrigated parcels may provide the best area to spread the valuable fertilizer. Also, extensive cattle feeding in parts of the Northeast and Central Districts of the state leads to more competition of rental land for spreading the manure – which is increasingly becoming recognized as a valuable fertilizer and soil conditioner. Irrigated parcels are also seen as some of the best land for that purpose. In contrast, non-irrigated corners in the East District are somewhat more uniform, and therefore, rental rates for dryland in the East District may be more in line with the irrigated rental rates. Producers in the South District may discount significantly for dryland corners since precipitation in this area is lower than in the eastern third of the state, which allows reported and estimated whole parcel rental rates to align fairly closely. Irrigation is not as prevalent in the Southeast District due to limited water availability, but when possible, producers are willing to bid more per acre on average for the entire parcel just to obtain the lease.

One key institutional factor behind the bidding process in every area of the state is crop insurance provisions. Crop insurance policies have an impact on producers’ bidding patterns when renting irrigated land, where quite often tenants will farm multiple parcels from different land owners. Producers basically have two different crop insurance unit options. One involves selecting policies which have separate insurance units and guarantees for the dryland and irrigated acres. The other option insures the entire irrigated and dryland parcel as an enterprise unit, having one guarantee. Land tenants can typically purchase a higher level of coverage
for an enterprise unit policy for about the same cost as lower levels of coverage on separate dryland and irrigated policies. The prices for these policies reflect the anticipated level of yield risk associated with separate versus an enterprise combined unit. The policy holder receives a discount on enterprise crop insurance premiums versus pricing separate policies for dryland and irrigated units.

Producers using an enterprise crop insurance unit for the irrigated and dryland acres on a parcel may choose to bid one rate for the entire tract of land. The yield risk for irrigated and dryland acres basically becomes averaged across the entire parcel. For this particular case, the land tenant may have a complete loss on dryland corners, but still raise enough on the irrigated acres that the yield damages does not trigger any indemnities from the enterprise crop insurance policy. Producers utilizing an enterprise crop insurance policy may better align irrigated and dryland yield risk on parcels where the irrigated and dryland yield differentials are not highly substantial. In our multi-area analysis example the irrigated and dryland yield differentials may be lower in the Northeast, East and Southeast Districts, relative to those in the Central and South Districts.

In summary, operations may be willing to bid high average rates across all irrigated and dryland acres of cropland to obtain the lease. But, careful consideration should be given on weighting the bid for an entire irrigated parcel to take into account separate rates on the irrigated and dryland acres. Also, the operation’s crop insurance strategy and the resulting guarantee are important factors to consider when renting irrigated tracts of land.

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