Winter Wheat Planting Date Trial: Platte County Dryland

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Introduction
Variety performance evaluations conducted by the Wyoming Agricultural Experiment Station (WAES) are continuous and ongoing programs. WAES evaluates many varieties/lines of winter wheat each year in cooperation with the Crop Research Foundation of Wyoming, University of Nebraska–Lincoln, Colorado State University, Montana State University, and private seed companies.

Objectives
Our objective was to test how planting date impacts the yield of winter wheat variety Goodstreak to help growers select the planting date best adapted to the region.

Materials and Methods
The experiment was located in a dryland field in Platte County, southeastern Wyoming. The experimental design consisted of three replications in a randomized complete block. Measurements taken included: heading date, plant height, grain yield, test weight, protein content, and moisture. Fertilizer was applied at 19-31-6 NPS lb/ac (19% nitrogen/31% phosphorus/6% sulfur). Goodstreak winter wheat was seeded on September 17, September 24, October 7, and October 21, 2014. The seeding depth was 1.5 inches, and the seeding rate was 50 lb/ac. Plots were harvested July 22, 2015, using an ALMACO plot combine.

Results and Discussion
Yield results are presented in Table 1. The typical planting date for the area—September 24—resulted in the highest yield and bushel weight, 41 bu/ac and 59.3 lb/bu. Complete results for these trials and many others are available at: http://www.uwyo.edu/plant-sciences/uwpplant/trials.html.

Acknowledgments
Appreciation is extended to the cooperators: Newton Russell, who allowed us to place trials on his land south of Wheatland, and Panhandle Coop Association, Scottsbluff, Nebraska, for donating fertilizer for this trial.

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Table 1: Platte County dryland winter wheat planting date study, 2015.

<table>
<thead>
<tr>
<th>Planting date: Goodstreak</th>
<th>Fertilized grain yield (bu/ac)</th>
<th>Test weight (lb/bu)</th>
<th>Heading date (days from Jan 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 17, 2014</td>
<td>39</td>
<td>58.2</td>
<td>151</td>
</tr>
<tr>
<td>September 24, 2014 (typical)</td>
<td><strong>41</strong></td>
<td><strong>59.3</strong></td>
<td>151</td>
</tr>
<tr>
<td>October 7, 2014</td>
<td>37</td>
<td>55.9</td>
<td>157</td>
</tr>
<tr>
<td>October 21, 2014</td>
<td>19</td>
<td>39.3</td>
<td>163</td>
</tr>
<tr>
<td>Average</td>
<td>34</td>
<td>53.2</td>
<td>155.5</td>
</tr>
</tbody>
</table>

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