All agricultural producers face recurring risks, significant among them being production risk. Many factors contribute to production risk, including adverse weather conditions such as drought or floods, fires, insects or pests, and disease. These events can devastate a crop, significantly reducing yield and farmer revenue. Since the only way to completely avoid all production risks is to stop producing, successful farmers will seek for ways to mitigate these risks through various management techniques. One risk management tool available to crop producers is the purchase of crop insurance.

Crop insurance policies may be purchased from USDA’s Farm Service Agency (NAP policies) or from a commercial firm. A list of sales representatives and policy information is found on the Utah State University Agribusiness webpage (http://extension.usu.edu). NAP policies are not available for crops that are insured by a commercial insurance company. This publication provides an evaluation of commercial policies sold in Beaver County.

Crop insurance programs allow farmers to mitigate some of their production risk by shifting it to a third party, the crop insurer. In effect, crop insurance removes some of the risk of production loss faced by farmers. In the event of a loss, the producer would receive an indemnity payment from the insurer based upon the type and level of crop insurance coverage. It is important to understand that crop insurance is a risk management tool, not an investment. Indemnity payments are not designed to always “pay,” and they are received only when something bad happens. When large losses occur, indemnity payments are made to lower the magnitude of the loss farmers incur.

Crop insurance programs allow farmers to mitigate some of their production risk by shifting it to a third party, the crop insurer. In effect, crop insurance relieves the farmer of total responsibility if he suffers a production loss. In the event of a loss, the producer would receive an indemnity payment from the insurer based upon the type and level of crop insurance coverage.

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<table>
<thead>
<tr>
<th>Commodity</th>
<th>Policies Sold</th>
<th>Insured Acres</th>
<th>Liabilities</th>
<th>Total Premium</th>
<th>Premium paid by Farmers</th>
<th>Indemnity</th>
<th>Loss Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forage Production</td>
<td>11</td>
<td>2,359</td>
<td>$406,911</td>
<td>$28,632</td>
<td>$7,557</td>
<td>$27,884</td>
<td>0.97</td>
</tr>
<tr>
<td>Corn</td>
<td>3</td>
<td>251</td>
<td>$68,290</td>
<td>$5,506</td>
<td>$1,468</td>
<td>$0</td>
<td>0.00</td>
</tr>
<tr>
<td>Barley</td>
<td>2</td>
<td>123</td>
<td>$15,644</td>
<td>$1,765</td>
<td>$724</td>
<td>$0</td>
<td>0.00</td>
</tr>
<tr>
<td>Wheat</td>
<td>1</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>2,733</td>
<td>$490,845</td>
<td>$35,903</td>
<td>$9,749</td>
<td>$27,884</td>
<td>0.78</td>
</tr>
</tbody>
</table>
Details about past crop policies in a specific area can help producers in that area better understand the level of the risks they face. For example, if indemnity payments were relatively high for a certain crop in the past, this would suggest the risk associated with growing that crop was high. Past information can also help farmers decide if the cost of the premium is worth the lowered risk from buying a crop insurance policy. The following consists of information concerning crop insurance policies for Beaver County designed to aid producers in risk management decisions.

Table 1 provides information specific to each crop including the number of policies purchased by farmers and the total premiums paid. The federal government has numerous subsidy programs to help agricultural producers, including for the purchase of crop insurance. The amount a policy is subsidized depends on the type and level of coverage. Of particular interest is the loss ratio. It represents the value of the loss, or the indemnity payment value, compared to the total premium value. Ratios above 1.0 indicate that the value of indemnity payments made to farmers exceeded the total value of premiums paid for crop insurance. As outlined in Table 1, no loss ratios for any commodity were greater than 1.0 in 2007. Another important relationship, however, is that between indemnity payments and the portion of premiums paid by farmers. A comparison of these two factors shows that while the loss ratio was below 1.0 for all commodities, indemnity payments were higher than premiums paid by farmers for forage production in 2007. The discussion below considers these and other factors relating to risk management for specific commodities grown in Beaver County.

**Forage Production**

Forage production insurance policies accounted for nearly 65% of total crop insurance policies sold, almost 80% of total premiums, and 100% of total indemnity payments in Beaver County in 2007. 2,359 acres were insured in Beaver County, a 25% increase in insured acres compared to 2006 and accounting for roughly 10% of the total insured forage production acreage in Utah. Despite the increase in insured acreage, the number of policies sold last year decreased by 27% respective to the previous year.

8 of the 11 policies purchased in 2007 were APH policies at the 50% coverage level, with the remaining 3 policies at the 65% coverage level. The decrease in policy numbers was a result of decreases at the 50% level; policies at the 65% actually increased relative to 2006. Despite the decrease in policy numbers, the increase in insured acreage and higher general coverage level led to higher liabilities and premiums in 2007. Figure 1 depicts a continual increase in premiums that is largely due to a similar increase in coverage levels. While no indemnity payments were made the previous two years, last year indemnity payments were nearly four times the amount farmers paid toward premiums. Similarly, the loss ratio increased significantly in 2007 when
compared to the previous years. A continuation of this trend would suggest increased risks associated with forage production.

**Corn**

Corn policies accounted for 18% of total policies sold, 15% of total premiums, and 0% of total indemnity payments in 2007. 251 corn acres were insured in 2007, equivalent to less than 3% of the total insured corn acreage in Utah. The number of acres insured in Beaver County more than doubled respective to 2006, and policy number also increased.

All policies purchased for corn in Beaver County have been APH policies, but the general coverage levels have increased over the past few years. Previous to 2007, no policies had been purchased above the 55% coverage level, but, last year two of the three policies purchased were at the 65% coverage level. Associated with the higher number of policies, higher insured acreage, and higher coverage levels are the higher liabilities and premiums characteristic of 2007. Figure 2 shows that before 2007 farmers paid nothing toward the crop insurance premium, but the increase in coverage level in 2007 required farmers to pay a portion of the higher premium. The figure also shows that no indemnity payments have been made to corn farmers in Beaver County. Consistent loss ratios of zero suggest that the corn producers in Beaver County face relatively lower risk of production loss than other crops in the area.

**Barley**

12% of crop insurance policies sold in 2007 were for barley, accounting for 5% of total premiums and 0% of total indemnities last year. The number of barley policies purchased increased in 2007, as well as insured acreage.

Of the two barley policies purchased in 2007, one was at the 50% CAT coverage level and the other at the 65% level, increasing the general coverage level overall. The increase in coverage level contributed to an increase in premiums as shown in Figure 3. Like corn, barley producers were required to pay some of the insurance premium for the first time in 2007. Also similar to corn is the consistent lack of indemnity payments and unchanging loss ratio of zero, again suggesting relatively lower risk.
Wheat
While wheat is the most widely insured crop in Utah, it was not as widely insured in Beaver County last year. Several acres have been insured somewhat sporadically in previous years, and Figure 4 shows that relatively large indemnity payments were made in two of the past eight years. While the risk associated with wheat production would seem to be relatively higher than other crops and insurance policies could help mitigate some of the risk, no acres were insured last year in Beaver County.

The information provided in this publication is general information for to Beaver County. It is intended to provide Beaver County crop producers with general indicators concerning risk and the use of crop insurance to mitigate risk in the area. To better evaluate individual levels of risk and need for crop insurance, each producer should also consider personal experience with crop loss, ability to bear risk, and risk aversion.