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 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 Davis 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 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. 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 only occur when something bad happens. When large losses occur, indemnity payments are made to lower the magnitude of the loss to farmers.

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 Davis County designed to aid producers in risk management decisions.

### Table 1. 2007 Crop Insurance for Davis County

<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>Onions</td>
<td>3</td>
<td>72</td>
<td>$105,247</td>
<td>$10,638</td>
<td>$4,361</td>
<td>$29,531</td>
<td>2.78</td>
</tr>
<tr>
<td>Wheat</td>
<td>2</td>
<td>112</td>
<td>$42,016</td>
<td>$4,683</td>
<td>$1,921</td>
<td>$0</td>
<td>0.00</td>
</tr>
<tr>
<td>Forage Production</td>
<td>1</td>
<td>43</td>
<td>$8,298</td>
<td>$480</td>
<td>$0</td>
<td>$0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>227</td>
<td>$155,561</td>
<td>$15,801</td>
<td>$6,282</td>
<td>$29,531</td>
<td>1.87</td>
</tr>
</tbody>
</table>
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, the loss ratio for onions was greater than 1.0 in 2007, but lower for the other commodities. 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 indemnity payments were higher than premiums paid by farmers only for onions as well. The discussion below considers these and other factors relating to risk management for specific commodities grown in Davis County.

**Onions**
Onions insurance policies accounted for half of total crop policies in 2007, 67% of total premiums and 100% of total indemnities. The number of total policies purchased remained unchanged from 2006 while total insured acreage declined 33%.

Decreases in policy numbers at the 50% coverage level was offset by an equal increase at the 70% level, resulting in a higher overall coverage level—all policies were insured at a 70% coverage level in 2007. Despite the higher coverage level, liabilities and premiums decreased, largely due to the decrease in insured acres. Indemnity payments, however, increased dramatically from $6,531 in 2006 to $29,531 in 2007 and the loss ratio increased to 2.78. Figure 1 shows that indemnity payments have been relatively high historically, exceeding premiums paid by farmers six of the past eight years. High indemnity payments coupled with a higher overall coverage level indicates relatively high risks associated with the production of onions in Davis County.

**Wheat**
Wheat policies accounted for a third of the policies purchased in Davis County, made up 30% of the total premiums, and received no indemnity payments in 2007. 112 wheat acres were insured last year, an 11% increase from the previous year. The number of total policies sold also increased in 2007.

One Actual Production History (APH) policy at the 65% coverage level was purchased in 2007 and one Crop Revenue Coverage (CRC) policy at the 70% coverage level was purchased. The increase in policy numbers was a result of the APH policy sold and the increase in insured acres stemmed almost entirely from that policy purchase. Given the increase in policy numbers and insured acres, liabilities and premiums also increased in 2007. Indemnity payments, however, remained at zero, continuing the trend depicted in Figure 2. While insured acres and
premiums have increased over the past few years, no indemnity payments have been made for the past eight years and loss ratios have remained at 0.0. The increase in insured acres suggests that mitigating risks is important to wheat growers in Davis County and the lack of indemnity payments historically indicates that the risk associated with wheat production is relatively lower in Davis County than other areas of the state where indemnity payments are generally high.

**Forage Production**

Last year was the first year a crop insurance policy was purchased for forage production in Davis County. One policy was purchased for forage production at the APH 50% level. The premium, accounting for 3% of total premiums in Davis County, was completely subsidized. 43 acres were insured under the policy and no indemnity payments were made last year.

The information provided in this publication is general information for to Davis County. It is intended to provide Davis 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.