



2007 Crop Insurance Summary

Cache County



Sarah Drollette and E. Bruce Godfrey, Department of Applied Economics

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 Cache 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.

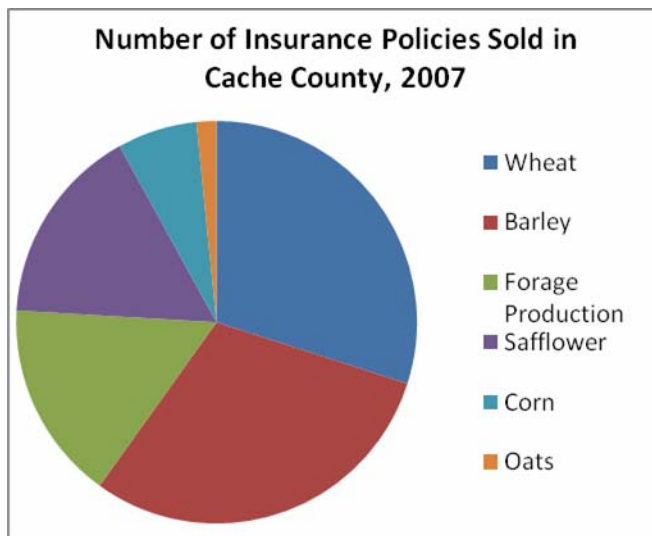
Details about past crop policies in a specific area can help producers in that area better understand the level of the risks they face. For example, if indemnity payments were relatively high for a certain crop in the past, this would suggest the risk associated with growing that crop was high. Past information can also help farmers decide if the cost of the premium is worth the lowered

Table 1. 2007 Crop Insurance for Cache County

Commodity	Policies Sold	Insured Acres	Liabilities	Total Premium	Premium paid by Farmers	Indemnity	Loss Ratio
Wheat	56	8,996	1,176,489	\$195,952	\$76,691	\$65,623	0.33
Barley	56	2,915	230,308	\$29,137	\$10,776	\$31,027	1.06
Forage Production	30	6,803	642,170	\$41,456	\$5,004	\$554	0.01
Safflower	30	2,563	123,397	\$10,696	\$3,804	\$7,925	0.74
Corn	12	1,715	725,182	\$54,640	\$21,807	\$84,500	1.55
Oats	3	59	4,430	\$263	\$87	\$0	0.00
Total	187	23,051	2,901,976	\$332,144	\$118,169	\$189,629	0.57

risk from buying a crop insurance policy. The following consists of information concerning crop insurance policies for Cache 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, the loss ratios for barley and corn were



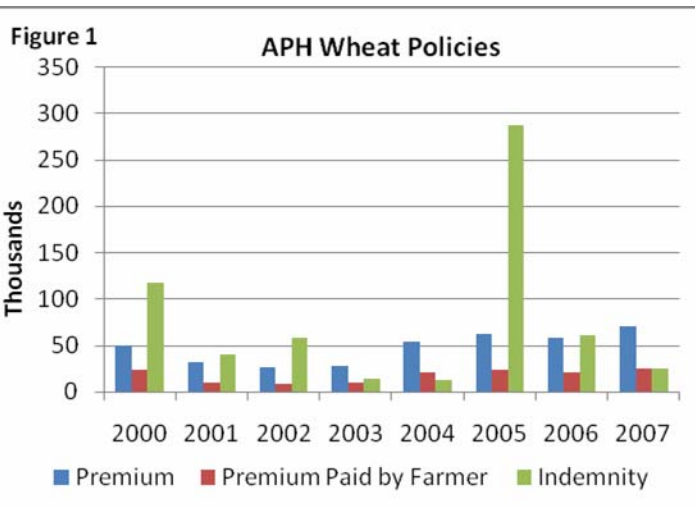
greater than 1.0 in 2007, but lower for all other commodities. Another important relationship is that between indemnity payments and the portion of premiums paid by farmers. A comparison of these two factors shows that while the loss ratio was only above 1.0 for two commodities, indemnity payments were higher than premiums paid by farmers for safflower, in addition to barley and corn in 2007. The discussion below considers these and other factors relating to risk management for specific commodities grown in Cache County.

Table 2. Changes in Wheat Policies by Type

Type and Coverage	Policies Sold	% change from 2006	Acres Insured	% change from 2006
APH 50% CAT	5	0	1,312	-2
APH 50%	14	17	2,234	16
APH 60%	2	0	319	-18
APH 65%	14	-18	1,813	-18
APH 75%	1	0	468	-40
CRC 65%	3	0	738	-44
CRC 70%	17	0	2,112	2
Total	56	-6.7	8,996	-12

Wheat

Wheat is the most widely insured crop in Cache County, accounting for nearly 30% of total crop insurance policies sold, 60% of the total premiums and 35% of the total indemnity payments during 2007. 8,996 wheat acres were insured last year, a 12% decline in insured acres compared to 2006. Insurance policy numbers have also declined over the past few years along with the decline in insured acreage.



Both Actual Production History (APH) and Crop Revenue Coverage (CRC) policies were purchased for wheat in 2007. Table 2 shows the number of policies purchased and the acres insured under each policy type and coverage level, along with the percent change relative to 2006. As the table outlines, the decline in total policies sold stems completely from declines in the purchase of APH policies at the 65% coverage level. Policy numbers at the APH 50%

level increased while all others remained unchanged. Despite consistency in policy numbers at most coverage levels, acres insured decreased at the majority of coverage levels. Large decreases in higher coverage level policies, specifically 75% APH and 65% CRC policies, contribute to the decrease in total acres insured and suggest that the lowering of risks in wheat production is becoming less important to some Cache County producers.

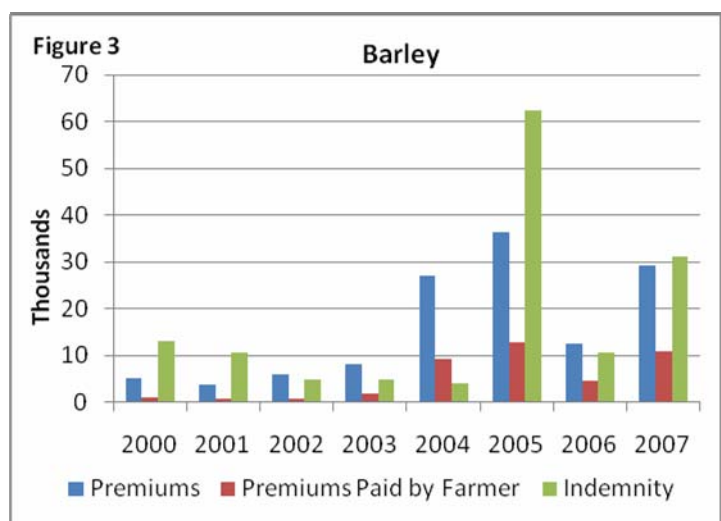
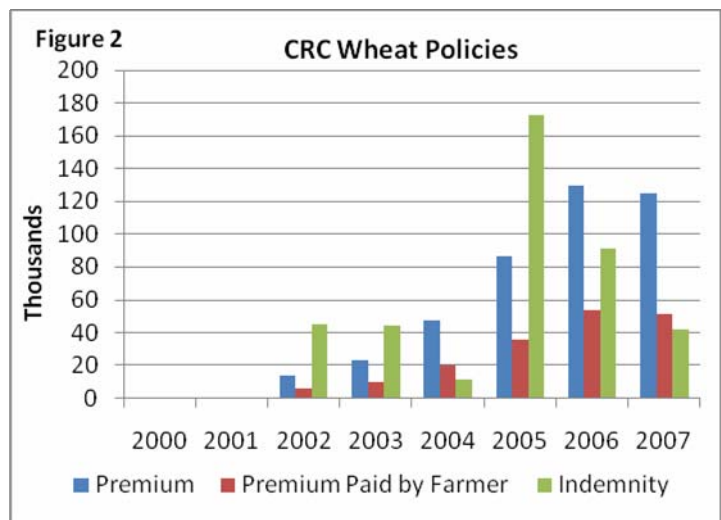
With a general decrease in coverage level, it is not surprising that liabilities have decreased as well as indemnity payments. Premiums did, however, increase relative to 2006 despite a lower general coverage level, suggesting that crop insurance for wheat has become slightly more expensive, or that farmers are covering a higher percentage of the expected price. Figures 1 and 2 show the total premiums, premiums paid by farmers and indemnity payments for APH and CRC wheat policies, respectively, since 2000. As shown in the graphs, the increase in premiums is characteristic only of APH policies.

Perhaps more important to note is that while total indemnity payments were lower than premiums paid by farmers in 2007, indemnity payments have exceeded total premiums paid by farmers most years since 2000 for both APH and CRC policies and loss ratios have been relatively high for wheat over the past eight years. These two facts suggest that there are fairly high risks associated with the production of wheat in Cache County and that those risks can be effectively mitigated with the purchase of a crop insurance policy.

Barley

30% of crop insurance policies sold in Cache County during 2007 were for barley, accounting for almost 9% of total premiums and 16% of total indemnities last year. The number of barley policies purchased declined 5% from the previous year, but the number of insured acres increased 43% relative to 2006.

Almost 80% of the policies purchased for barley were at either the 50% coverage level or the 75% level. Relatively few policies were purchased at the coverage levels between 55% and 70%, and the



decline in total policy numbers stemmed entirely from decreases in these coverage levels. Despite the decrease in policy numbers, acres insured increased for all but the 55% and 65% levels. This suggests that although fewer farmers are purchasing insurance policies, those farmers who do purchase policies are insuring more acres. As expected, liabilities and premiums increased last year due to the increase in insured acres. Indemnity payments also increased significantly relative to 2006, as shown in Figure 3. Historically, loss ratios associated with the production of barley in Cache County have been relatively high and, as Figure 3 depicts, indemnity payments have exceeded premiums paid by farmers seven of the past eight years. These factors suggest that the risk associated with barley production in Cache County is relatively high and crop insurance is a fairly useful tool to help mitigate some of that risk.

Forage Production

Forage production insurance policies accounted for 16% of total crop insurance policies sold in Cache County, but only about 12% of total premiums and 0.3% of total indemnity payments in 2007. While total forage production acreage in Utah increased nearly 60% in 2007, acres insured in Cache County declined nearly 17% and the number of policies sold decreased 30% compared to 2006.

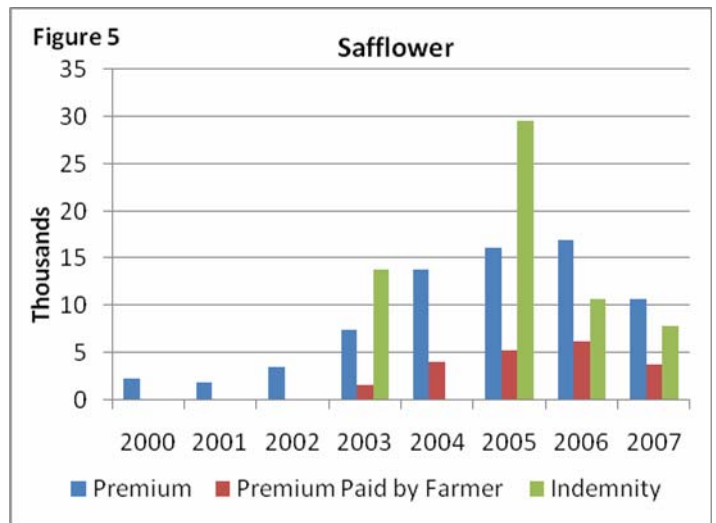
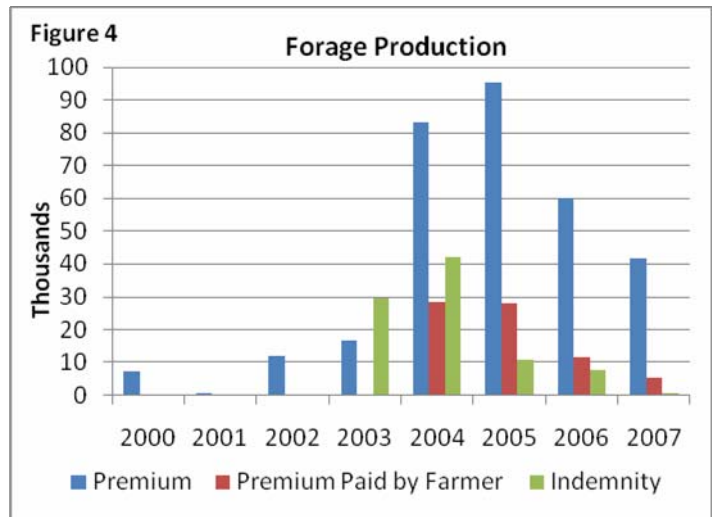
The decline in policy numbers and acres insured occurred at all coverage levels. 26 of the 30 policies sold in 2007 were at the 50% coverage level and very few policies were purchased at any of the higher coverage levels. With the decrease in policies and insured acreage, liabilities and premiums also decreased in 2007, both around 30%. Total indemnity payments, however, decreased over 92% relative to 2006. Figure 4 shows that indemnity payments have declined the past four years and have been less than premiums paid by farmers for the past three years. Similarly, loss ratios have been relatively small, exceeding 1.00 only in 2003, suggesting relatively low risk with forage production in Cache County compared to other crops.

Safflower

Safflower insurance policies made up 16% of total crop policies sold, 3% of total premiums paid, and 4% of total indemnity payments in Cache County during 2007. The number of safflower policies declined 6% from 2006 and acres insured fell 38%.

The decline in policy numbers occurred only at the 60% and 75% coverage levels, but the decrease in acres insured occurred at all coverage levels. Despite the decline in policy numbers at the 75% coverage levels, more policies were purchased at this level than any of the others, and 90% of all policies were at the 50% or 75% coverage level. Similar to barley, very few policies were purchased at the intermediate coverage levels.

Given the decrease in policies and insured acreage, liabilities and premiums also decreased in 2007. Figure 5 shows that total indemnity payments also decreased relative to 2006. Part of the lower indemnity payment level in 2007 can be explained by



slightly lower coverage levels of policies purchased last year. The loss ratio, however, remained relatively high and indemnity payments have exceeded premiums paid by farmers over the past three years. Figure 5 also shows that no indemnity payments were made from 2000-2002, years for which all policies purchased were at the 50% coverage level. Coverage levels increased in more recent years and those years with higher average coverage levels correspond to higher overall indemnity payments. This historical behavior of indemnity payments compared to coverage level suggests it is unlikely a farmer will lose over half his safflower crop. The risk for some yield loss, however, is high and that risk could be mitigated with the purchase of crop insurance.

Corn

Corn policies accounted for 6% of total policies sold, 16% of total premiums, and 45% of total indemnity payments in Cache County during 2007. 1,715 corn acres were insured in 2007— a 49% increase relative to the previous year. Despite the increase in insured acreage, total policy numbers declined 8%.

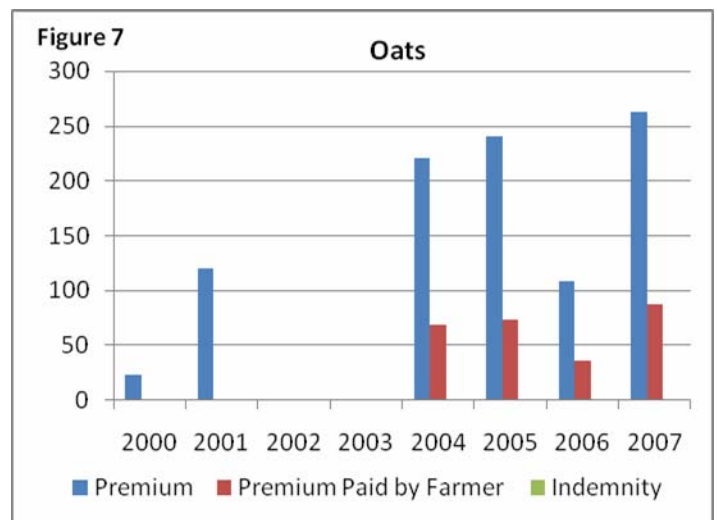
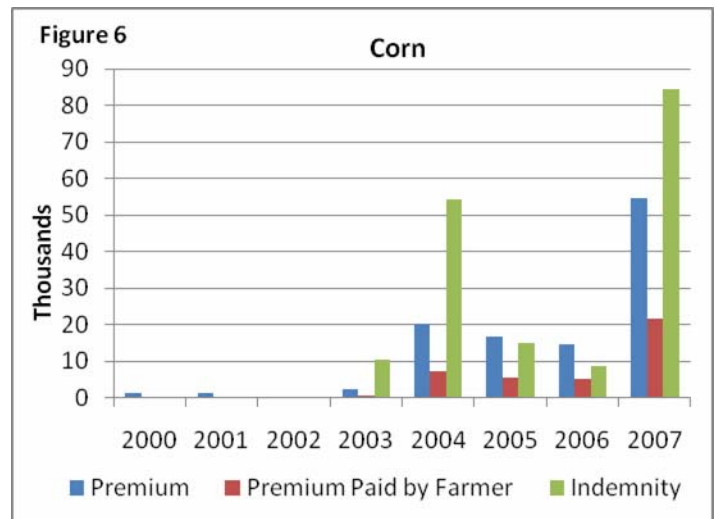
About half of the policies purchased last year were at the 50% coverage level. The entire decrease in policy numbers, however, occurred at the 50% level. Insured acres also decreased at the 50% level, but increased at the higher levels, suggesting, as with barley, that fewer corn producers are purchasing insurance policies, but those who are purchasing policies are insuring more acres.

The increase in insured acres and the higher general coverage level due to the decrease in policies at the 50% level both contributed to higher liabilities in 2007 and higher premiums as shown in Figure 6. Indemnity payments also increased almost 10 times compared to the 2006. Like safflower, the lack of indemnity payments in earlier years compared with the relatively higher indemnity payments in more recent years can be correlated with an increase in coverage level since 2002. Similar risk implications can be drawn for corn as for safflower, indicating high risk of some yield loss associated with the production of corn in Cache County.

Oats

Only about 2% of crop insurance policies sold in Cache County during 2007 were for oats, accounting for a mere 0.001% of total premiums and receiving no indemnity payments. The number of oats policies purchased remained unchanged from 2006, but acres insured increased 84%.

All oats policies purchased in 2007 were APH policies at the 50% coverage level. In fact, all oat policies purchased in Cache County over the past



eight years have been at the 50% coverage level. Given the increase in acres insured, liabilities and premiums more than doubled in 2007. No indemnity payments were made in 2007, nor have any indemnity payments been made historically as shown in Figure 7. Similarly, loss ratios have remained at 0 all years. Considering the low coverage levels, no indemnity payments suggest there is little risk of losing more than half of an oat crop, but there may be higher risk of losing a smaller portion of an oat crop for which higher coverage levels could be considered.

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

All Utah and Cache County crop insurance information presented in this publication is taken or developed from Risk Management Agency crop insurance data available through their website: www.rma.usda.gov.

Utah State University is committed to providing an environment free from harassment and other form of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran's status. USU's policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color religion, sex, national origin, age, disability, or veteran's status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work. Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle Cockett, Vice President and Director, Cooperative Extension Service, Utah State University.