

## **Questions on Drought, Crop Insurance, Disaster Aid, and the new FSA Farm Program<sup>1</sup>**

Disclaimer: Thanks to the many growers that emailed these questions or called me. My answers to these questions are based on discussions with the Risk Management Agency, Farm Service Agency, and three Congressional offices in two states. For many of these questions, USDA does not have a final answer and some of the questions they have answered are subject to change. In other cases the issue has been raised but will require Congressional action. However, growers must make decisions now based on the best available current information and I hope these responses are useful.

*In some cases Kansas farmers are up against their water right limits and state law prevents them from pumping more water but their federal crop insurance contract requires them to irrigate. Will crop insurance cover the loss?<sup>2</sup>*

The crop insurance policy does not require irrigated growers to pump water beyond their legal water right limit. However, if additional water would benefit the crop and can be legally obtained, producers would be required to use the additional water. Irrigated growers that had a “reasonable” expectation of having adequate irrigation water to carry out a “good” irrigation practice and applied their full allocation should be covered for further crop deterioration caused by hot dry weather.

Growers who stop irrigating when there was still available irrigation water and the irrigation was still beneficial to the crop may be subject to appraisals for uninsurable cause of loss. Therefore, irrigated growers who are planning to stop irrigating should first contact their crop insurance agent. The crop insurance agent will likely want a loss adjuster to see the crop before irrigation is stopped. Most growers will want the loss adjuster to inspect the crop before they stop irrigating.

Some agronomists are also recommending that growers sacrifice half of their crop and concentrate the available irrigation water on the other half. This will allow the irrigation water to meet the high moisture needs on half of the crop caused by the hot dry weather. However, growers are encouraged to notify their crop insurance agent before diverting any irrigation water. The local Extension Service, Natural Resource and Conservation Service (NRCS) or other recognized “expert” must agree a water shortage exists and agree with the grower’s intentions or actions. This agronomist recommendation may reduce the amount of the loss and be good for both the grower, USDA-RMA, and the insurance companies.

*Can you plant wheat on failed milo acres and insure the wheat?*

Based on information from the Risk Management Agency (RMA), the wheat would be insured if there is a continuous crop practice in the county. However, if the land is located in a summer

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<sup>2</sup>Thanks to the Risk Management Agency for their comments and I have made their suggested changes to the text. This language has more exceptions than my original text, but it still suggest to me that most Kansas, Colorado, and Nebraska irrigated growers will have crop losses, caused by hot dry weather that limited the effectiveness of irrigation this year, covered under crop insurance.

fallow county only with no continuous crop practice offered, then the winter wheat would not be insurable. If the 02 wheat crop failed and was removed before June 1 and no milo was planted, then one could plant wheat on these acres as summer fallow wheat. Growers should also direct this question to their crop insurance agent to make sure they are following the most current RMA directives.

*We are very dry and wondering if there is going to be enough soil moisture to even establish a stand of wheat. Is any one addressing this drought and too dry to plant problem for this fall's wheat?*<sup>3</sup>

Prevented planting payments may be made if there is inadequate moisture for germination of seed and crop progress demonstrates prevented planting is “general” in the area. However, if other growers in the area plant the crop and it is considered a “good practice”, prevented planting payments may not be made. Growers who are eligible to collect prevented planting on wheat acres could not plant those acres to a spring crop and keep their eligibility for prevented planting payments. There have been winter wheat crops that have been “dusted in” and still produced a crop. If the state gets moisture in late fall or more importantly next spring often a wheat crop can recover.

Just in the “talking stages” is a proposal under NRCS that would provide a “Super Conservation Reserved Enhanced Program” (CREP). Rather than collecting prevented planting payments because it was too dry to plant, farmers could enroll these acres in CREP and receive payments that are higher than similar Conservation Reserve Program (CRP) payments. Growers would maintain these acres in a conservation use until the drought was over and then would return to planting crops. **THIS IS NOT A PROGRAM**, but is being discussed.

Spring planted crops are a little different because if they are planted in dry conditions combined with an expected hot dry summer there is little chance for the crop to recover. Wheat can survive more extreme weather conditions. Again growers should direct these questions to their crop insurance agent to make sure they are following the most current RMA directives.

*Will there be any adjustment for hybrid seed yields that are normally lower than the commercial yields for the "same" crop for proving FSA yields?*

I don't think there is a final answer on this question but currently there is no provision in the new farm bill to adjust hybrid seed yields. Growers producing hybrid seeds may want to update base acres but if a large number of their crop acres are used for growing hybrid seeds, it is unlikely they will benefit from proving yields. These growers will likely want to use their current Farm Service Agency (FSA) program yield.

*Farmers that feed their milo and/or corn on the farm most likely will have a crop insurance yield as "proof" of production. Some may also have combine monitor records. They may not have claimed LDP payments on feedgrains because there were days when there were no LDP payments. Will growers that fed their feedgrains to livestock on the farm be able to use their crop insurance APH records for proving yields?*

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<sup>3</sup>Thanks to the Risk Management Agency for their comments and I have made their suggested changes to the text. I would suggest the safest strategy is to plant the crop unless just planting will cause the soil to blow or if you can “prove” it is too dry for the seed to germinate. This language is very unclear because it is based on the planting by other farmers in the “area”.

Based on a recent TV conference from Illinois, the answer from the Illinois FSA director is no for most growers (This appears to be the USDA policy but I have not seen any other public statements by FSA). FSA will only use crop insurance records if they have been verified by a third party. Under crop insurance that would happen only if there is an insurance claim, or if the grower's crop insurance records were audited by USDA. Very few crop insurance records are audited (less than 5%) and if there is a claim the grower will likely want to substitute the 75% of the county average yield.

In a press release from Ann Veneman, U.S. Secretary of Agriculture, she announced that FSA would use crop insurance records for proving planted acres. So the effect is crop insurance records will be used to update FSA base but not to update yields.

This is mostly a feedgrain issue. This will also apply to growers that chop their feedgrains for silage to be fed on their farm. It is unlikely these growers will have any documentation beyond farm scales and their crop insurance APH records.

Wheat, cotton, soybeans and other oilseeds were mostly sold to a third party and most of that production had an LDP payment so that FSA has a record. Cash grain feedgrain growers will likely have sales receipts and will also be able to prove yields.

*A farmer has been cash renting two farms from two different landlords and farming the entire unit under one farm serial number. Landlord one has good farmland, while landlord two has poor farmland. However, the yield for the entire farm serial number will be summed and then divided by planted acres to get a proven FSA yield. So landlord one will get a lower proven yield than her land produced while landlord two will get a proven yield that is greater than the land produced. So landlord two likes the averaging while landlord one does not. The obvious solution is to reconstitute the farm and break them into two separate "farms" but FSA has stopped all reconstitution of farms. Has that changed?*

It appears that reconstitution of farms may be allowed if the county committee determines it is necessary for that producer. However, that may not be the final word. One source suggests that USDA is still trying to figure out how to handle this issue. Supposedly this is a much bigger issue in the Southern States, but I received this question from the corn belt.

*Will FSA use the simple 12 month average price or sales weighted 12 month average price? Also what kind of 12 month average price forecast can farmers expect for calculating their 35% advanced payment of the projected counter cyclical payment?*

The unofficial word from FSA is that they will "likely" use the 12 month weighted average price to determine the counter cyclical payment. That would be "farmer friendly" because the largest weights will occur around harvest when prices are often lower. The lower the 12 month average price the larger the counter cyclical payment.

The unofficial word from FSA is the 12 month price forecast will be "scientifically" estimated by USDA economists. Barnaby's forecast is the estimated price will be at the loan or maximum counter cyclical payment. If correct, farmers will be able to claim 35% of the maximum counter cyclical payment before the month of November.

The more interesting question is what will happen in February of 2003 when growers will get another 35% advanced counter cyclical payment (up to 70%). There will be additional market information because the size of this fall's crop will be known. If the market continues to rally

above the effective target price there would be no payment in February 2003. Growers that elect not to take the advanced payment this fall (most likely for tax reasons) may get no advanced counter cyclical payment, assuming forecasted prices exceed the effective target prices in February 2003 when they planned to claimed the payment.

If the 12 month national average price is higher than the effective target price, then those growers who did claim the advanced payment this fall will have to pay it back next fall. It is unlikely that growers will write a check to the FSA office. Probably FSA will just deduct it from the 2003/2004 payment, but farmers would get the benefit of an interest free loan for about a year.

*What is the expected benefit from disaster aid?*

That will depend on which version of disaster legislation is passed and if the President signs the legislation.

Congressman Moran (R-KS) and others have introduced a disaster aid bill in the House that follows the 2000 disaster aid format. Farmers would be eligible for compensation for 2001 and 2002 crop losses directly attributed to adverse weather and related conditions.<sup>4</sup>

Proposed Crop Disaster Program (CDP) covers all crops as follows: (a). Insured Crops -- Crops insured by either catastrophic (CAT) or buy-up (coverage of 50/100 or greater) crop insurance; (b). Uninsured Crops -- Crops for which crop insurance was available but not purchased; (c). Noninsurable Crops -- Crops for which crop insurance was not available.

Farmers will be compensated if their losses exceed 35 percent of historic yields. Historic yields will be based on the higher of the 5-year National Agricultural Statistics Service county average yield, the crop insurance actual production history yield, or the NAP-approved yield.<sup>5</sup>

The payment formulas provide greater benefits to producers who bought insurance on their eligible crops than the uninsured farmers who signed the crop insurance waiver. Insured farmers with eligible losses on insured crops will be compensated at 65 percent of crop insurance market price election. Uninsured farmers with eligible losses on uninsured crops will be compensated at 60 percent of the crop insurance market price elections. Farmers with eligible losses on noninsurable crops will be compensated at 65 percent of the 5-year average price. Noninsured crop disaster assistance program (NAP) area loss triggers do not apply.

The proposed CDP payments will not be subject to a national prorated factor, meaning farmers will receive 100 percent of the approved payment. However, CDP benefits are limited to \$80,000 per person. No one with an annual gross income of \$2.5 million or more is eligible.

As a condition of receiving benefits under proposed CDP, any producer who elected not to purchase crop insurance on a 2001 or 2002 crop for which CDP benefits are requested must insure that crop for the 2003 and 2004 crop years. This not a very limiting factor because growers can meet this requirement with a \$100 CAT contract.

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<sup>4</sup>The word from Washington is that disaster aid under this bill will follow the rules of the 2000 disaster aid program. The analysis in this paper is based on the 2000 program rules and assumes the new program will follow these same rules.

<sup>5</sup>It is unclear if this bill would allow growers to use the new FSA proven yield. Clearly that yield was not available in 2000.

The Moran proposal for the Livestock Assistance Program (LAP) provides direct payments to eligible livestock producers who suffered grazing losses due to natural disasters during calendar year 2001 and/or 2002. LAP assistance will be provided to eligible producers in approved counties. To be approved, a county must have suffered a 40 percent or greater loss of available grazing for at least 3 consecutive months as a result of damage due to drought, hot weather, disease, insect infestation, flood, fire, hurricane, earthquake, severe storms, or other disasters during the 2001 and/or 2002 crop year. The maximum grazing loss allowable for payment is 80 percent. A county must have been approved as a primary disaster area under a Secretarial disaster designation or Presidential disaster declaration.

Eligibility for LAP benefits for an individual producer is based on whether a natural disaster caused the producer in an approved county to suffer a 40 percent or greater loss of grazing for 3 or more consecutive months during calendar year (CY) 2001 and/or 2002.

Eligible livestock are beef and dairy cattle, buffalo or beefalo when maintained on the same basis as beef cattle, sheep, goats, swine, and equine animals used commercially for human food or kept for the production of food or fiber on the owner's farm.

Livestock become eligible for LAP benefits only if they are owned or leased for at least 3 months before the payment period.

To be eligible for LAP, a producer must possess beneficial interest in eligible livestock or have financial risk in eligible livestock and have a gross income of less than \$2.5 million for each person in an operation for calendar year 2001 and/or 2002 and be a citizen of the United States or an alien legally residing here.

LAP assistance is based upon the value of feed calculated on a corn equivalency basis required for eligible livestock during at least a 3-consecutive-month period where a minimum 40 percent feed loss occurred. A producer must have sufficient grazing available for eligible livestock in order to receive the maximum payment.

When producers apply for LAP, they will be required to provide the following information that includes the number, kind of livestock, and weight range of livestock owned or leased during 2001 and/or 2002, and the producer's share in those livestock. They must also report acres, location, and type of grass or forage used to support eligible livestock. Livestock producers must also provide an estimated percentage of their loss of grazing and information about significant changes in livestock numbers, including dates when the changes occurred. A producer can receive LAP benefits and also receive benefits under other programs administered by the Secretary of Agriculture for grazing losses.

Senators Roberts (R-KS), Brownback (R-KS) and others have also introduced a disaster aid bill. The major difference between their bill and the House bill is that growers must select either 2001 or 2002 to claim disaster aid payments but not both years. Some farmers incurred qualifying crop and/or livestock grazing/hay losses for each of the 2001 and 2002 crop years but under the Roberts et al. bill they could only collect from one year. This is the source of the major difference in the two bills and the cause of the lower cost for the Roberts et al. bill.

The Roberts et al. bill would also require farmers to purchase crop insurance for the next three crops or calendar years if they claim disaster aid on an insurable crop. It appears the purchase of a \$100 CAT contract will meet this requirement. The funding would be made available under emergency spending rules that require no offset.

Senator Baucus (D-MT) and others introduced another disaster aid bill, S. 2800. This bill provides funding for the Crop Disaster Assistance Program and the Livestock Assistance Program. The bill provides "such sums as are necessary" to fund these two programs. It appears this bill is more like the one introduced in the House. It is estimated that the bill will provide \$500 million for the LAP in 2001 and \$700 million in 2002; and \$1.8 billion for crops in 2001 and \$2 billion for crops in 2002. Like the House bill this bill would also allow farmers to collect disaster aid in both years. Therefore farmers with qualifying disaster aid claims in both years would collect for 2001 and 2002 losses.

Senators Hagel (R-NE) and Enzi (R-WY) introduced S. 2768 that is another disaster aid bill. Their bill provides only emergency livestock assistance, assistance for control of grasshoppers and Mormon crickets, with offsets. They would rely on crop insurance to cover crop losses.

Their program would provide only \$620 million to make and administer payments for livestock losses using the criteria established to carry out the 1999 Livestock Assistance Program (except for application of the national percentage reduction factor) to producers for 2001 or 2002 losses in a county that has received an emergency designation by the President or the Secretary in calendar year 2001 or 2002.

This bill would also prevent farmers from collecting for losses in both years. If a producer is on a farm located in a county that received an emergency designation in each of calendar years 2001 and 2002, then the producer may receive payments for losses associated with the disaster declaration in either calendar year 2001 or calendar year 2002, but not both.

*Will there be a per acre payment limit on ad hoc disaster aid combined with crop insurance indemnity payments?*

Past disaster aid programs limited farmers to 100% of the crop value. That was defined as the historical yield times the MPC price election. Because many insured farmers bought higher coverage levels and/or revenue insurance, those farmers will likely have their disaster aid reduced because they will exceed the cap. This creates another incentive not to buy higher crop insurance coverage levels.

*Will the addition of Ad Hoc disaster aid cause the USA to exceed World Trade Organization (WTO) limits causing the Secretary to cut farm program payments as required by law?*

Previous ad hoc disaster payments were considered non-trade distorting ("green box" with no limits on payments) therefore the payments did not count in the WTO limit. Because the payments were ad hoc it was determined to be nontrade distorting because farmers could not plan on these payments in their planting decisions. It is likely that if ad hoc disaster aid is approved for 2001 or 2002 the payments will be classified as "green box" and will not count in the WTO limits.

*How should farmers plan for ad hoc disaster aid?*

Farmers should gather up their records now just in case ad hoc disaster is passed into law. It may help to have photos or other evidence that shows the condition of pastures and other losses. It is unlikely that any ad hoc disaster aid will be made available before January and any crop, hay, or pasture residual that would be useful for loss adjustment will be lost.

*Will Congress continue to provide subsidized crop insurance, and disaster aid payments?*

This is more election year politics than economics. Growers probably should not spend the money just yet because the President has suggested he will veto any disaster aid that is not limited to livestock assistance only. The only bill that would likely meet this test is Senator Hagel's bill. Rep. Stenholm (D-TX) has suggested the Farm Bill could be reopened if Congress considers disaster aid. He has suggested that urban representatives might balk at more farm aid when their constituents have lost a large part of their net worth caused by the decline of the stock market.

Congress just overhauled the crop insurance program yet most of these disaster aid bills provide for payments on insurable crops. If Congress wants farmers to use crop insurance as their disaster safety net, then providing disaster aid payments is sending the wrong message. Past ad-hoc disaster aid programs requiring the purchase of crop insurance on future crops has not proved to be a sufficient incentive to stop the call for disaster aid. Disaster aid is simply "free" crop insurance. Why buy the cow if the milk is free?

*Are winter wheat growers better prepared for this drought than the 1996 Kansas drought?*

In order to consider that question, the following analysis includes the seven most western Kansas counties of Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, and Wallace counties. These counties border Colorado and represent some of the dryer locations in 2002.

There has been a major shift to higher coverage crop insurance levels in these seven Kansas counties currently under severe drought stress compared to the insurance coverage levels during the 1996 drought. In 1996, CAT represented 43% of the insured acres. In 2002, the percent of insured acres under CAT had declined to 4% (figure 1). In 1996, the buyup coverages of 65% and less declined from 56% of the insured acres to 29% of the insured acres in 2002. In 1996, the percent of the insured acres with coverage levels of 70% and greater represented less than 1% of the insured acres. While in 2002, 67% of the acres were insured at coverage levels of 70% or greater. Therefore, one would have to conclude that farmers are clearly in a better risk management situation to cover this year's drought than the one in 1996.

The dollar amount of coverage also greatly increased from 1996 to the current 2002 drought. In 1996, there was 13.6 million dollars of CAT coverage on this seven county wheat crop. The 2002 CAT coverage has declined to slightly over a million dollars of coverage. The dollars of coverage in 1996 was 42.4 million dollars for coverage levels of 65% and less. By 2002, buyup coverage for 65% and less declined to 17.6 million dollars (figure 2). By contrast the dollars of coverage written at 70% and greater increased from 366 thousand dollars in 1996 to 49.5 million dollars in 2002 (figure 2).

There was also a shift in acres insured to higher coverage levels as presented in figure 3. The net acres insured under CAT in 1996 were 403 thousand acres. CAT insured acres have declined to 34 thousand acres in 2002. The insured acres decreased from 527 thousand to 237 thousand acres insured at buyup coverage levels of 65% and less. The net acres insured at 70% and greater in 1996 were just 3,300 acres. That has increased to 544 thousand acres in 2002, with insurance coverages of 70% and greater.

Not only has this coverage increased shifting from CAT and 65% and less buyup coverage to 70% and greater coverage but most of that increase has also shifted to revenue insurance [revenue insurance includes Crop Revenue Coverage (CRC) and Revenue Assurance (RA)]. In 2002, 85%

of the insured acres were covered under revenue insurance. Revenue insurance provided 89% of the total dollars of wheat coverage for these seven county regions of Cheyenne, Greeley, Hamilton, Morton, Sherman, Stanton, and Wallace counties. Revenue insurance accounted for 91% of the total premiums paid for wheat crop insurance in this seven county region and captured 90% of the crop insurance subsidy provided in this region. There was no revenue insurance offer on 1996 wheat (figure 4).

**Summary.** Clearly, farmers are better prepared to handle this drought damaged wheat crop than they were in 1996. This is largely because of the major shift to higher coverage levels and greater purchase of revenue insurance coverage. If the final loss ratio numbers follow a similar trend to 1996, this seven county region will collect about 30 to 40 million dollars in indemnity payments. By contrast, the 1996 crop collected 21 million dollars in indemnity payments for this seven county region. The final loss statistics will not be known for approximately 6 months but if the damage is similar to 1996 these are not unreasonable estimates.

There were fewer acres insured in 2002 than were insured in 1996. There are two possible reasons. The first reason is there maybe more uninsured farmers in 2002 than in 1996. The other possibility is that there were fewer acres of wheat planted in this seven county region, therefore fewer acres would be insured. It is likely that the reduction in insured wheat acres is probably caused by both factors.

Because there are uninsured acres these farmers will probably favor some form of ad hoc disaster payments on the 2002 wheat crop. Those farmers that are insured will still not generate revenue equal to 100% of their expected crop value, because these crop insurance contracts have a 25 to 30% deductible. Therefore, these insured farmers will also not generate income that would match a normal crop income. Presumably, any ad hoc disaster payments will be added to the crop insurance payment as was done in the past and effectively cover the deductible in the insurance contracts. Those that purchase no insurance would have to rely totally on the ad hoc disaster payments or simply refinancing their existing operation.

It is clear that the Roberts-Kerrey Crop Insurance Reform Act of 2000 performed as designed. The change in the subsidy and the availability of revenue insurance were clearly embraced by Kansas wheat growers in this region and will greatly improve their financial condition over what would have been the case if they were insured under the 1996 levels of coverage.

*Are you still recommending purchase of the least expensive replacement-revenue insurance product given that the indemnity payments were not the same on 2002 winter wheat?*

The simple answer is, **YES!**

There was not a “large” difference in the size of the indemnity payments among the alternative Kansas wheat crop insurance contracts (figure 5). While the results were unusual in 2002, the long-term expected indemnity payments for Crop Revenue Coverage (CRC) and Revenue Assurance with the harvest price option (RA-HPO) are approximately equal. However, in any particular year one of these contracts will pay more than the other and that occurred in 2002.

The RA contract without the harvest price option on average will pay less than either RA-HPO or CRC and in some cases less than MPC-I-APH. Income Protection (IP) will normally pay less than RA-HPO, CRC, and RA in Kansas because IP is based on the Chicago Board of Trade (CBOT) wheat price that is normally lower than the Kansas City Board of Trade (KCBOT) wheat price and IP offers enterprise units only.

The major surprise in 2002 was the CRC and IP contracts paid based on a revenue indemnity payment because the price declined 25 cents a bushel or 7.5 percent lower than the fall planting price as measured by KCBOT July wheat. The CBOT price declined from \$3.04 to \$2.89 or a 4.9% decline that applied to IP in the Southern Great Plains and CRC in the Southern soft wheat states. During the same crop year the RA harvest price for hard red winter wheat increased by 6 cents or 1.8 percent above the fall planting price.

#### *Why Two Prices?*

Both RA and CRC planting price is based on the Kansas City July “new crop” wheat price that is set on September 15. The planting price election for both 2002 contracts was \$3.34 that set the minimum revenue guarantee for CRC and RA but their harvest prices were different.

The reason there were two different harvest prices was caused by the harvest price being measured during different time periods. The CRC harvest price measurement is the June average of KCBOT July wheat, while RA’s harvest price is the July 1-July 14, average price of KCBOT July wheat. In 2002, the June average price was \$3.09, while the July 1-July 14 average was \$3.40.

This price change generated the unusual result of prices being lower for CRC and triggering the revenue guarantee, while being higher for RA-HPO and triggering the replacement coverage guarantee. This was the first time in 30 years when one price was lower and the other price was higher thus triggering revenue insurance on one contract, while triggering replacement coverage on the other contract (Table 1).

The higher prices measured from July 1-14 lowered the RA (without the harvest price option) indemnity payments because it is a revenue guarantee only and does not provide the replacement coverage when prices are higher. The IP contract is also a revenue guarantee only but the harvest price was measured as the June average price of the CBOT July wheat contract for Kansas and other hard red winter wheat states. Because the IP harvest price was lower than the IP base price the result was higher IP payments than RA or RA-HPO under some conditions. Because the IP wheat price election was \$3.09 based on the CBOT versus \$3.34 for RA (hard red winter wheat states), RA insured growers with “large” yield losses would be paid more than IP insured growers. However, with “small” yield losses, IP insured growers may be paid more than RA insured growers. Payment differences will also depend on the unit structure selected for RA versus IP.

#### *So which contracts paid the most on the 2002 wheat losses?*

To show the different possibilities that generate indemnity payments an example hard red winter wheat farm was assumed with a 40 bushel average yield (actual production history) and a 75 percent guarantee. The MPC1-APH contract would have had the lowest coverage (except for IP) because of a \$3.15 price election versus \$3.34 on the revenue products. Those growers that are in the soft wheat states would have had a price election of \$3.04 and under those conditions, depending on yields; MPC1-APH could have actually paid more.

The IP contract uses the Chicago Board of Trade contract even in the hard red winter wheat states and the result would have been lower coverage than the MPC1-APH contract. Therefore, with “low” yields, MPC1-APH would have paid more than IP in states where prices were measured by

the CBOT wheat contract. This would also be true for both RA and CRC in Southern soft wheat states. However, that would not be true for RA-HPO because the price increased to \$3.17.

For this farm with a 40 bushel APH in Kansas and other Southern hard red winter wheat states, the insurance coverages were: IP, \$91.20; MPCI-APH, \$94.50; RA, \$100.20; CRC, \$100.20 and RA-HPO, \$102.00. With a 5 bushel yield, the indemnity payments were: IP, \$76.75; MPCI-APH, \$78.75; RA, \$83.20; CRC, \$84.75 and RA-HPO, \$85.00 (Table 2).

In the case of Kansas and other Southern hard red winter wheat states, the preferred contract would depend on the amount of yield produced. If the grower produced an average yield then no insurance was the preferred alternative. But with claims there was no contract that was best under all conditions.

Because there are many different yields that could have occurred on this farm, the indemnity payments for each of the contracts were plotted in figure 5 for yields ranging from 0 bushels to 33 bushels. For yields above 6 bushels, on this particular farm, the CRC contract paid the highest indemnity payments among all of the contracts as represented by the green line labeled CRC. This was caused by the revenue indemnity payment being triggered by the lower CRC harvest price measurement (figure 5).

The RA (red line and labeled RA) contract, without the harvest price option, paid the lowest indemnity payments compared to RA-HPO or CRC when yields were below 6 bushels. RA would have paid less than RA-HPO or CRC, unless the yield was equal to zero and then RA and CRC would have paid exactly the same. The RA-HPO contract paid more than CRC if yields were below 6 bushels but less than CRC if yields were above 6 bushels as represented by the blue line and labeled RA-HPO. This was caused by the RA harvest price being higher than the fall planting price. The MPCI-APH contract paid less than CRC or RA-HPO, which is represented by the black line and labeled MPCI-APH (figure 5).

In order to get a closer look, figure 6 shows the indemnity payments for yields ranging from 0 to 6 bushels. Notice with these very “low” yields the RA-HPO payout was higher than all of the contracts compared. The CRC paid more than RA without the harvest price option for these very “low” yields. MPCI-APH paid less than RA-HPO, CRC or RA. The insurance contract that would have paid the least in Kansas was the IP contract (purple line and labeled IP), primarily because it was measured by the Chicago Board of Trade wheat price. IP had a lower price election than MPCI-APH (\$3.04 versus \$3.15) and the harvest price measurement was lower at \$2.89. With smaller yield losses, at some point, IP would have paid more than MPCI-APH but still less than the CRC contract (figure 6). There was very few IP wheat contracts sold in Kansas.

Figure 7 shows the payouts for yields of 29 bushels to 33 bushels. Because the CRC contract was triggered by the revenue loss the indemnity payments triggered at about 32.5 bushels rather than 30 bushels as required by MPCI-APH and RA-HPO because of the price increase. With a small yield loss the IP contract paid more than the RA-HPO, RA, or MPCI-APH but the unit structure may have offset this advantage. The RA contract required the largest yield loss to trigger payments.

With “small” yield losses the CRC contract would have been the preferred coverage. With severe yields losses the RA-HPO would have been the preferred contract. The least preferred insurance product would have been RA without the harvest price option and “small” yield losses while IP would have been the least preferred with “large” yield losses (Figures 6 and 7).

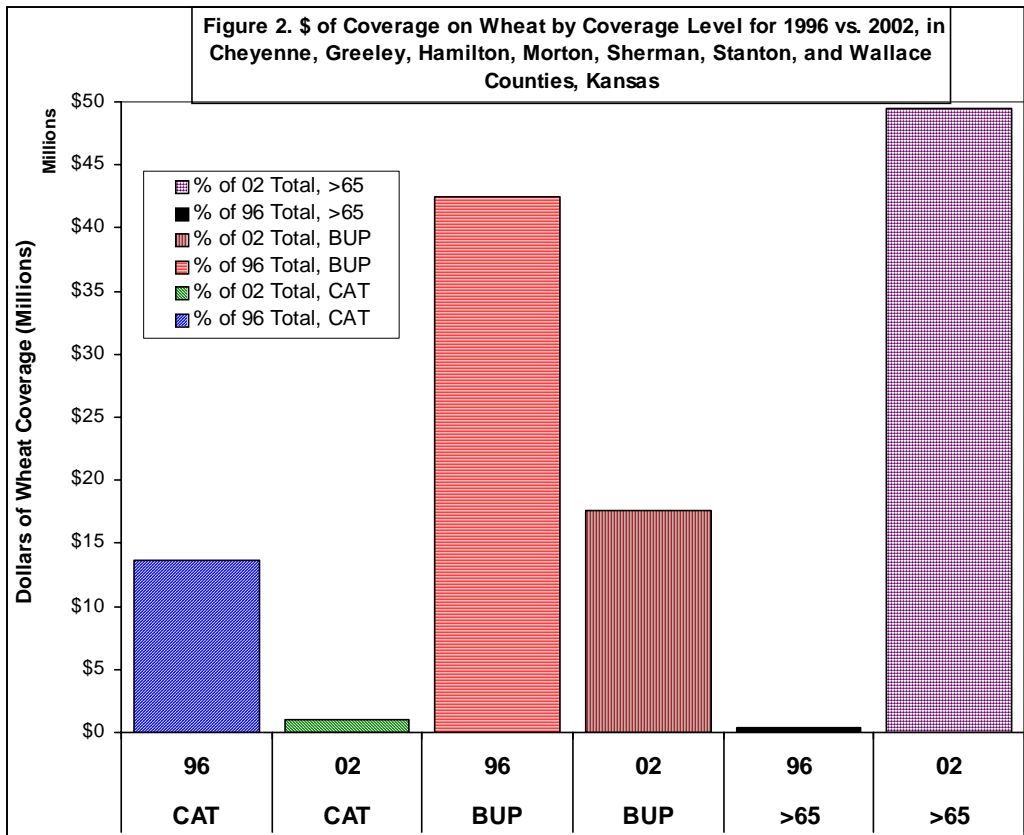
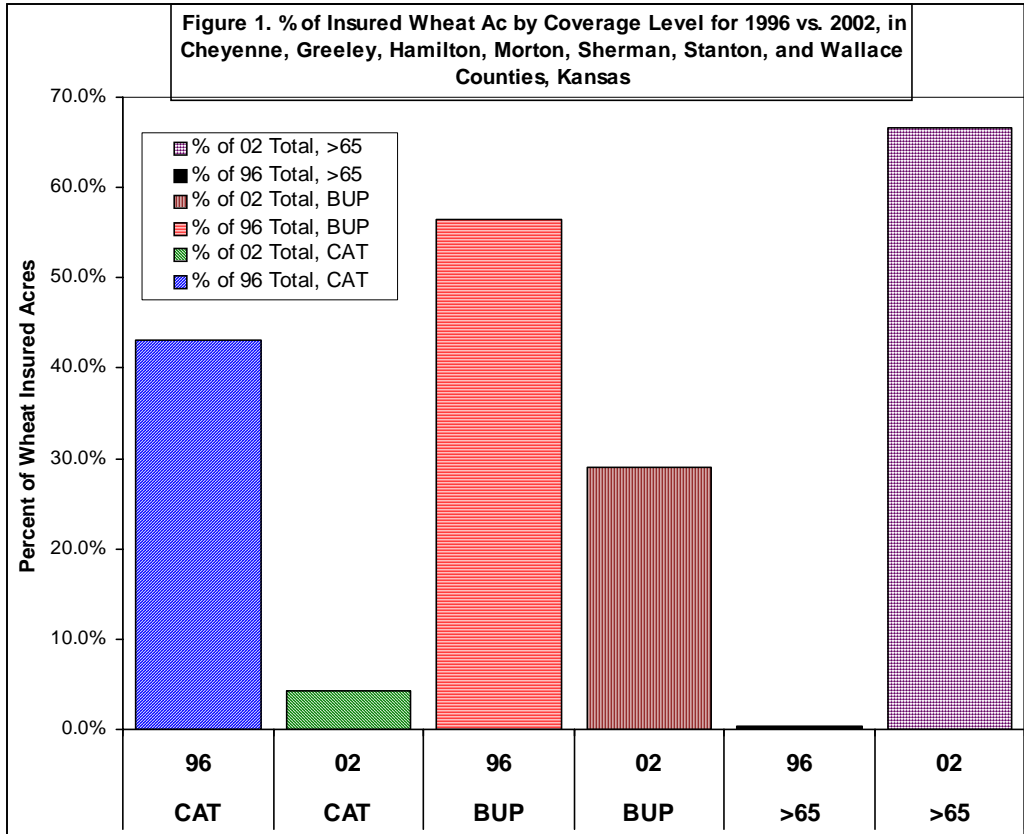
**Table 1. Historical Market Prices and MPCJ Price Elections**

KCBOT July Wheat		CRC		JUN	%	RA JUL 1-14	%	
Year	Plant Price	Harv. Price	Avg. Change	Price Change	Harv. Price	Avg. Change	Price Change	
1	2002	3.34	3.09	(0.25)	-7.5%	3.40	0.06	1.8%
2	2001	3.31	3.07	(0.24)	-7.3%	3.01	(0.30)	-9.2%
3	2000	3.34	3.02	(0.32)	-9.6%	2.87	(0.47)	-14.2%
4	1999	3.16	2.84	(0.32)	-10.1%	2.62	(0.53)	-16.9%
5	1998	3.95	3.04	(0.91)	-23.1%	2.94	(1.01)	-25.5%
6	1997	4.13	3.64	(0.48)	-11.7%	3.30	(0.83)	-20.1%
7	1996	3.91	5.76	1.85	47.4%	5.35	1.45	37.0%
8	1995	3.52	4.24	0.72	20.4%	4.67	1.14	32.5%
9	1994	3.00	3.37	0.36	12.0%	3.30	0.30	9.9%
10	1993	3.20	2.87	(0.33)	-10.3%	3.04	(0.16)	-5.1%
11	1992	3.05	3.59	0.54	17.9%	3.38	0.33	10.8%
12	1991	3.07	2.86	(0.21)	-6.9%	2.69	(0.38)	-12.5%
13	1990	3.69	3.29	(0.40)	-10.9%	3.08	(0.61)	-16.5%
14	1989	3.65	4.14	0.49	13.5%	4.17	0.52	14.3%
15	1988	2.78	3.79	1.01	36.4%	3.83	1.05	37.9%
16	1987	2.39	2.64	0.25	10.5%	2.59	0.20	8.2%
17	1986	2.74	2.44	(0.31)	-11.2%	2.39	(0.35)	-12.8%
18	1985	3.54	3.20	(0.33)	-9.4%	3.12	(0.42)	-11.8%
19	1984	4.05	3.65	(0.40)	-9.9%	3.60	(0.45)	-11.1%
20	1983	3.92	3.58	(0.34)	-8.7%	3.59	(0.33)	-8.5%
21	1982	4.56	3.64	(0.92)	-20.1%	3.57	(0.99)	-21.7%
22	1981	4.88	4.22	(0.66)	-13.5%	4.20	(0.68)	-14.0%
23	1980	4.25	4.09	(0.17)	-3.9%	4.23	(0.03)	-0.6%
24	1979	3.06	4.09	1.03	33.7%	4.32	1.26	41.1%
25	1978	2.50	3.05	0.56	22.2%	3.11	0.62	24.7%
26	1977	3.56	2.36	(1.20)	-33.8%	2.38	(1.18)	-33.2%
27	1976	4.28	3.76	(0.52)	-12.2%	3.80	(0.48)	-11.3%
28	1975	4.38	3.15	(1.23)	-28.0%	3.32	(1.06)	-24.3%
29	1974	3.75	4.05	0.30	8.1%	4.34	0.59	15.6%
30	1973	1.88	2.59	0.72	38.1%	2.60	0.72	38.2%
Average Price		3.494	3.437	(0.057)				
Sd. Deviation		0.681	0.700	0.702				
Max Price Increase				1.852				
Max Price Decrease				(1.227)				

**Table 2. Indemnity for MPCl, RA, and CRC, With a 5 Bushel Yield**

Indemnity Payment	MPCI	KCBOT		CRC	CBOT
		RA	RA-HPO		IP <sup>1</sup>
APH	40.0	40.0	40.0	40.0	40.0
Coverage Level \Deduct	75%	75%	75%	75%	75%
<b>Bushels Guaranteed</b>	<b>30</b>				
<b>Enter MPCl Price Election</b>	<b>\$3.15</b>	<b>\$3.34</b>	<b>\$3.34</b>	<b>\$3.34</b>	<b>\$3.04</b>
<b>\$ of Coverage \ Acre</b>	<b>\$94.50</b>				
<b>Min Revenue Guarantee</b>		<b>\$100.20</b>	<b>\$100.20</b>	<b>\$100.20</b>	<b>\$91.20</b>
<b>Max Revenue Guarantee</b>		<b>No Limit</b>	<b>No Limit</b>	<b>\$160</b>	<b>No Limit</b>
<b>Final Guarantee</b>		<b>\$100.20</b>	<b>\$102.00</b>	<b>\$160.00</b>	<b>\$91.20</b>
<b>Current Year's Crop (bu)</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>
<b>Lost Bushels</b>	<b>25.0</b>				
<b>Harvest Average Price</b>		<b>\$3.40</b>	<b>\$3.40</b>	<b>\$3.09</b>	<b>\$2.89</b>
<b>Revenue to Count</b>		<b>\$17.00</b>	<b>\$17.00</b>	<b>\$35.00</b>	<b>\$14.45</b>
<b>Indemnity Payment</b>	<b>\$78.75</b>	<b>\$83.20</b>	<b>\$85.00</b>	<b>\$125.00</b>	<b>\$76.75</b>
<b>Pymt VS MPCl Indemnity</b>	<b>N/A</b>	<b>\$4.45</b>	<b>\$6.25</b>	<b>\$46.25</b>	<b>(\$2.00)</b>

<sup>1</sup>IP offers enterprise units only and this lowers the odds of collecting. Therefore, it is unlikely that the IP paid more than RA or MPCl because most farmers would have had multiple units or the loss had to be farm wide. In Kansas and other hard red winter wheat states, IP uses the CBOT July wheat price while the other revenue produces use the KCBOT July wheat price.



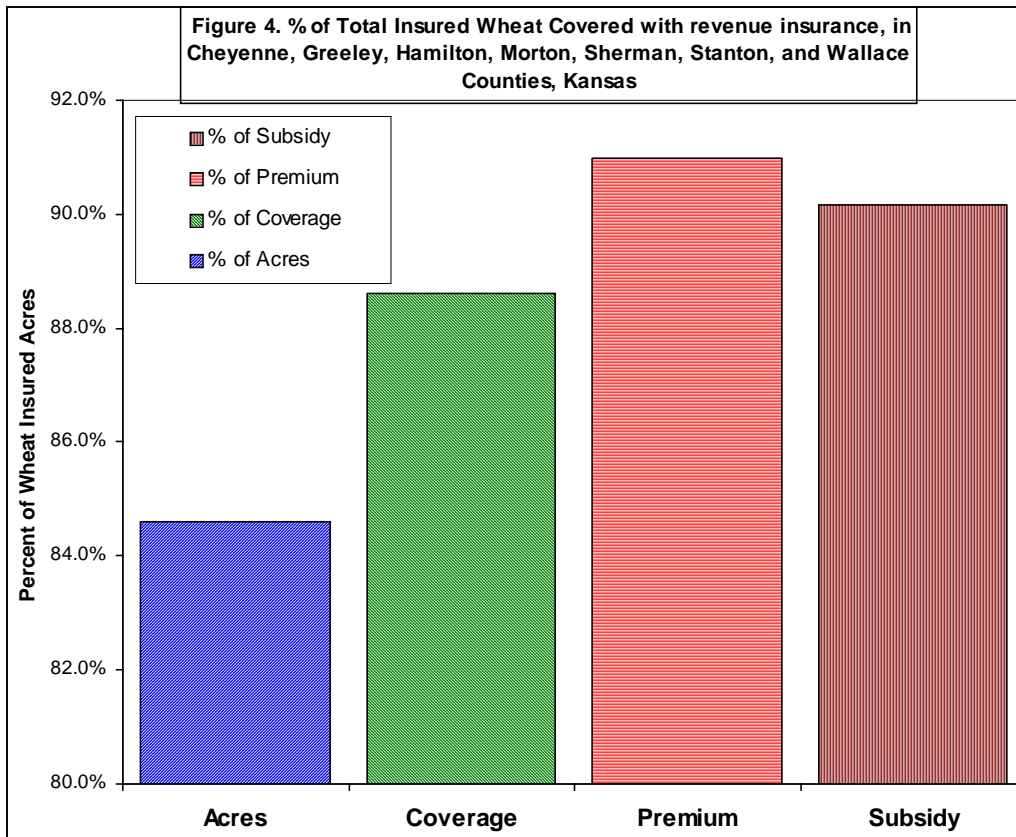
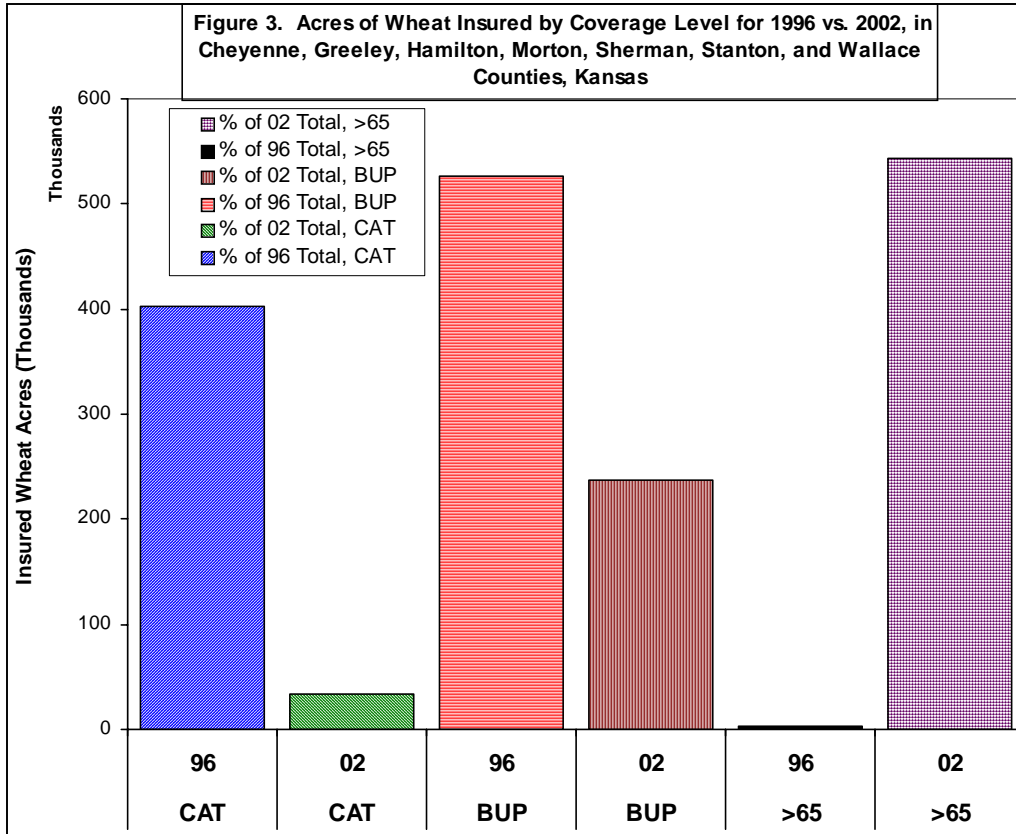


Figure 5. 75% Guarantee Indemnity Payments for MPCl-APH, RA, RA-HPO, and CRC on Wheat based on 2002 KCBOT Wheat Harvest Price for Yields from 0 to 33 bu.

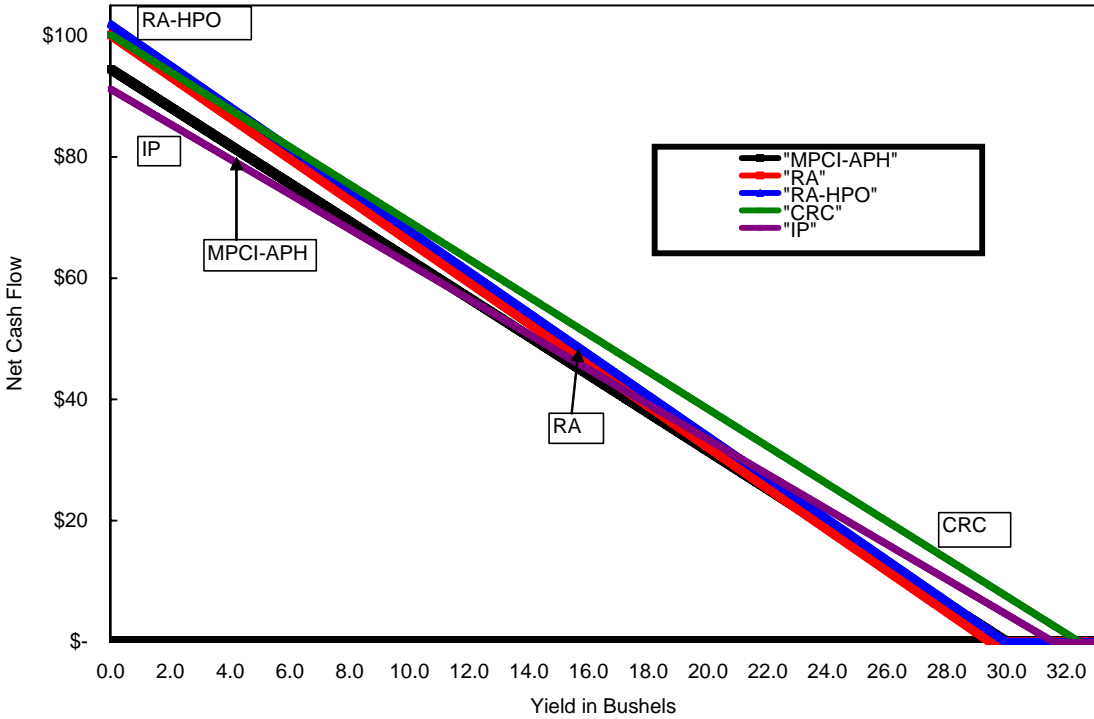


Figure 6. 75% Guarantee Indemnity Payments for MPCl-APH, RA, RA-HPO, and CRC on Wheat based on 2002 KCBOT Wheat Harvest Price for Yields from 0 to 6 bu.

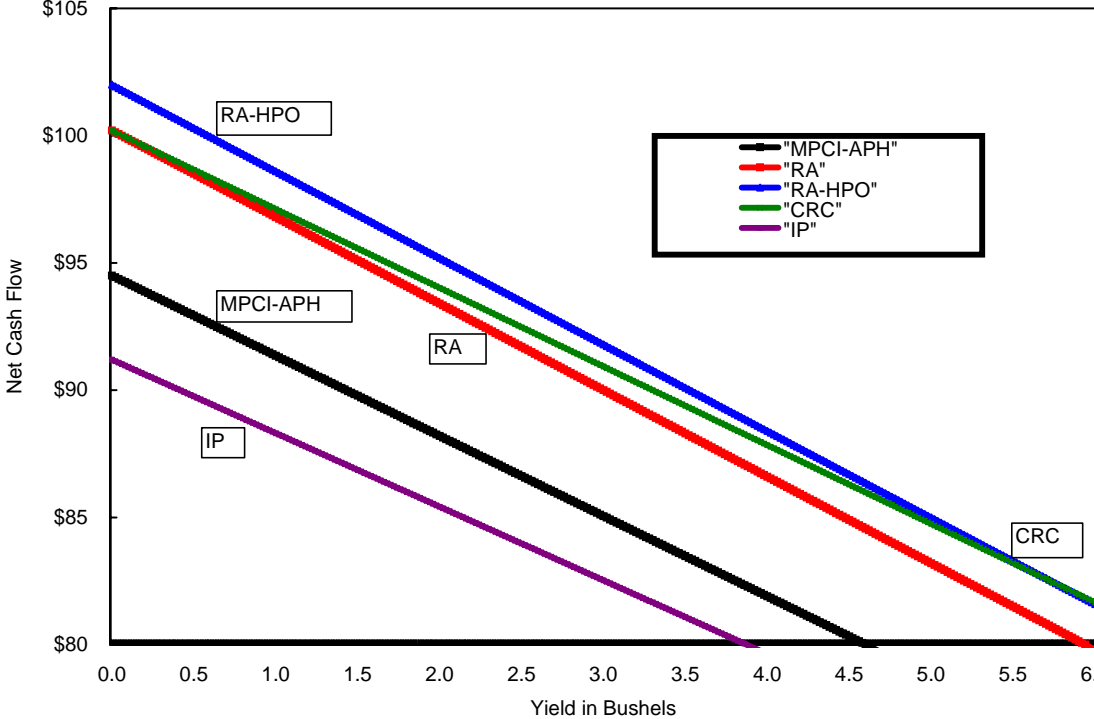


Figure 7. 75% Guarantee Indemnity Payments for MPCl-APH, RA, RA-HPO, and CRC on Wheat based on 2002 KCBOT Wheat Harvest Price for Yields from 29 to 33 bu.

