



2002 Cotton Management Economic Notes

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Russell Tronstad
Extension Economist

Use CRC as a price risk tool for Grassley/Dorgan?

Loan Deficiency Payments (LDPs) and unlimited Marketing Loan Gains (MLGs) have historically provided a definitive minimum price on *all* cotton produced. But this floor price may not be available for much of Arizona's production this year due to the Grassley/Dorgan amendment that was passed last week by the Senate in the latest farm bill legislation developments. Under this bill, combined LDPs, and MLGs will be limited to \$150,000 for each farm. Assuming an expected yield of 1,300 lbs/ac and a market price of 37¢/lb, lost benefits would begin with only 449 acres of production under this payment limit. To help determine what realized and lost benefits will be for your situation, the National Cotton Council has made available two spreadsheet templates (farm.xls and acres.xls) in the "members only" area of their web site.

Given that the downside price protection of LDPs and MLGs could be removed for much of Arizona's 2002 Upland crop, Crop Revenue Coverage (CRC) should be considered as a risk management tool for establishing a price floor with the Grassley/Dorgan amendment. Ever since the Federal Crop Insurance Reform Act of 1994 was signed into law, premium subsidies paid by the government have trended upwards. In June of 2000, the Agricultural Risk Protection Act (ARPA) was passed which applies the same subsidy rate for CRC as Actual

Production History (APH) policies. Prior to ARPA, CRC policies were not subsidized beyond the per acre dollar amount provided in an equivalent APH policy. Per acre CRC premiums are higher than APH because CRC insures for both yield and price combinations that fall below a set coverage level and CRC pays for yield losses below that insured for at the higher of harvest or planting price. Thus, per acre government premium subsidies after ARPA have been higher for CRC than APH policies.

Arizona Crop Insurance Returns. The accompanying table gives the historical payout received from crop insurance for each \$1.00 of producer premium and signup costs expended by Arizona farmers. For all crops and commodities in the last 4 years, producers have received \$2.42 back on average in indemnity claims for each dollar expended. Returns are high because the government has subsidized anywhere from

Historical payout for each \$1.00 of AZ producer premium & signup costs

	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
All Crops	\$2.53	\$3.14	\$1.88	\$2.11
APH-CAT Cotton	\$1.27	\$1.81	\$6.12	\$1.29
APH-BUP Cotton	\$2.54	\$1.70	\$2.17	\$0.92
CRC Cotton	\$0.60	\$6.41	\$1.34	\$2.26
All Cotton Policies	\$2.42	\$3.22	\$1.95	\$1.40

2001 Payouts for Upland by Policy and County

	<u>APH-CAT</u>	<u>APH-BUP</u>	<u>CRC</u>
Cochise	\$0.00	\$3.37	--
Graham	\$0.00	\$1.15	--
Greenlee	\$0.00	\$0.00	--
La Paz	\$0.00	\$3.18	\$0.00
Maricopa	\$4.34	\$0.18	\$1.51
Mohave	\$0.00	--	\$8.68
Pima	\$0.00	\$0.07	\$7.16
Pinal	\$0.00	\$1.06	\$5.34
Yuma	\$0.00	\$2.91	\$0.00

Note: Returns for 2001 will likely increase some since not all 2001 crop year policies have been settled. As of February 12, 2002, no ELS indemnity claims had been made for any AZ county.

Recent Prices (February 19, 2002)

	Upland (¢/lb.)	Pima (ELS) (¢/lb.)
Spot - uncompressed	30.36	79.50
Mar '02 Futures	33.85	
Jul '02 Futures	37.08	
Dec '02 Futures	40.72	
Adj. World Price	29.28	

Note: Upland Spot for Desert SW grade 31-3, staple 35, add 300 points for compressed bales, Pima Spot for DSW grade 03, staple 46.

35% to 100% of the total premium cost. In spite of these high rates of return, much of Arizona's Upland acreage has had minimal coverage. In 2001, 10% of total acreage had no coverage and another 31% had only Catastrophic (CAT) coverage where yield losses less than 50% of established yield are paid for at only 55% of the established price election. About 50% of total acreage had yield coverage bought up (BUP) beyond the CAT coverage level and only 10% of our state's acreage took advantage of the highest government subsidies offered in 2001 through CRC.

Price Elections. Based on the lowest loan rate possible for Upland, the 100% price election for APH was established at a minimum of 50¢/lb on November 30, 2001. The price election for CRC was announced last Friday at only 43¢/lb since it is based on December futures prices between Jan. 15 and Feb. 15. Even though the price election for APH policies is 7¢ more than CRC policies, premium subsidies for CRC still exceed APH for the same coverage levels, as described below. Higher payouts associated with CRC than APH

for a 20% yield shortfall and 30¢ harvest price illustrate how CRC covers for combined yield and price shortfalls. Higher CRC payouts for the 35% yield shortfall and higher 55¢ harvest price illustrate how CRC pays for yield shortfalls with a higher harvest price. Higher premiums for CRC than APH reflect these advantages. While a yield shortfall with no price increase above 50¢/lb will result in higher payouts for APH than CRC, due to the higher APH price election, APH still does not provide *any* price protection.

The sales closing date of **28 February, 2002** is essentially here, but premiums are not due until the end of November. Specific quotes can be obtained using the premium calculation software found online at www.rma.usda.gov/tools/ — “Calculate Premiums.” Click on “Menu” to run a quote and navigate to other areas of the program. Look at the “detail” rather than “producer” worksheet since total premiums and subsidies are off as of this writing date in the producer worksheet. Insurance agents can be located from this site as well under “Agent Locator” for official quotes.

Comparison of CRC and APH crop insurance premiums, subsidies, and payout rates for an acre of Upland in Pinal County with a proven yield of 1,300 lbs/ac

Yield : Price Coverage¹	50:55	50:100	60:100	70:100	80:100	85:100
<u>Percent of Premium Subsidized</u>	100%	67%	64%	57%	48%	38%
<u>Actual Production History (APH)</u>	----- dollars per acre -----					
Producer Premium	0.00	2.92	4.64	8.55	19.92	31.80
Govt. Premium Subsidy	4.96	5.94	8.26	12.30	18.39	19.49
Total Premium Cost	4.96	8.86	12.90	20.85	38.31	51.29
Coverage (only yield losses)	182.00	325.00	390.00	455.00	520.00	552.50
<u>Crop Revenue Coverage (CRC)</u>						
Producer Premium	n.a.	3.61	5.98	11.21	25.88	41.09
Govt. Premium Subsidy	n.a.	7.34	10.64	16.14	23.88	25.19
Total Premium Cost	n.a.	10.95	16.62	27.35	49.76	66.28
Coverage ² (revenue shortfalls)	n.a.	279.50	335.40	391.30	447.20	475.15
<u>Production Guarantee (lbs/ac)</u>	650	650	780	910	1040	1150
<u>Payout (\$/ac)</u>	<u>20% yield shortfall (1040 lbs/ac) and 30¢/lb harvest price</u>					
APH	0.00	0.00	0.00	0.00	0.00	32.50
CRC	n.a.	0.00	23.40	79.30	135.20	163.15
<u>Payout (\$/ac)</u>	<u>35% yield shortfall (845 lbs/ac) and 55¢/lb harvest price</u>					
APH	0.00	0.00	0.00	32.50	97.50	130.00
CRC	n.a.	0.00	0.00	35.75	107.25	143.00

¹ The 100% price election for APH and CRC is 50¢/lb and 43¢/lb, respectively. The 5% prevented planting option was selected with 100 acres of production for both APH and CRC policies. Rate yield was set equal to 1,300 lbs/ac as well so that no transition or T yield effects are incorporated into the premiums.

² Because CRC pays the higher of planting or harvest price, coverage levels for CRC are a lower bound on per acre revenues.