Decision Tools for Risk Management: Specialty Crops

by

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Objectives

- Provide example of available and future crop ins. products.
- Introduce tools available for decision analysis.
- Make aware of future risk management workshop

Top 10 Reasons for Not Managing Risk

- 10. There's no free cap or jacket
- 9. I'm waiting for my neighbor to try it
- 8. The media created El Nino
- 7. Crop failures build character
- 6. It's more fun to keep my lender guessing about my ability to repay
- 5. I probably deserve a total crop loss
- 4. Sleeping too soundly would make my spouse wonder
- 3. The IRS would take the profits anyway
- 2. My children would just fight over the estate
- 1. Life would be dull without daily doses of fear

Source: Farm Futures

Ability to Increase Profitability
@ Lowest Cost

Motivation



Phases of the Cropping Cycle

Tools for Managing Risk

- Crop Insurance (?)
- Crop Diversification
- Precision Farming
- Contracting/Futures (?)

Current Feasibility Studies for Vegetable Crop Insurance Policies

- Asparagus
- Broccoli
- Carrots
- Cauliflower
- Celery

- Garlic
- Globe artichoke
- Lettuce-head
- Lettuce-leaf
- Lettuce-romaine
- Spinach

Essentials for Evaluating Risk

- Data/Info.: yields, prices, costs, resources, etc.
- Analysis: pencil, calculator, or computer
- Wisdom: risk-profit tradeoff

Programs For Risk Mgt. Analysis

 Ag Decisions: Web based program to evaluate profit-risks in selecting a marketing plan and crop mix strategy

• Farm Survivor: Web based game for risk management decision analysis.

Programs For Risk Mgt. Analysis

• RMA: Site for premium calculation http://www3.rma.usda.gov/apps/premcalc/

Quicken: Financial Software

• Customized spreadsheet to help answer what if questions.

RMA Website

- On-line Crop Insurance
 Quotes
- Crop, Price Elections, Etc.
- NAP/Disaster Assistance
- Current AZ Crop Insurance
 Options

On-line Crop Insurance Quotes

Location: 🎎 http://www.rma.usda.gov/

WYYYYY THUUL USUUL GOY

News

- ▶ What's New
- ▶ What's Hot

Crop Policies

Pilot Programs

Participation Data

Regulations

Tools/Calculators

Agent Locator

Producer Training

Events/Calendar

Crop Weather

Publications

About RMA

- ▶ FCIC
- ▶ Field Offices
- Civil Rights
- ▶ File A Complaint
- ▶ Report Fraud
- **▶** FOIA

FAO

- **▶** Definitions
- ▶ Help

Other Sites

► Ag Risk Library Contact Us

RMAontine

Search Tips

Enter search text

Ouick Search

Risk Management Agency / U.S. Department of Agriculture Sunday, February 10, 2002

New RMA Administrator Announced

February 6, 2002 -- Secretary Veneman today named Ross J. Davidson, Jr., as the Administrator of RMA. He is expected to begin Feb. 19, 2002.



2003 Budget Overview

February 5, 2002 -- The President's FY 2003 budget released vesterday included \$2.8 billion to fund the Federal crop insurance program. RMA's administrative and operating expenses are proposed at \$76.1 million, a decrease from FY 2002, USDA/RMA budget (see page 99)



Sec. Veneman Commends RMA **Employees**



DAILY SPOTLIGHT ON:

The South -- Mild, dry weather is returning to the region, allowing spring planting preparations to resume in southernmost areas. Despite recent rainfall, long-term drought remains a concern in the southern Atlantic region. In contrast, unfavorable wetness persists in some locations from the Delta westward.

Outlook -- The storm system in the Northwest is forecast to move eastward, reaching the north-central U.S. on Saturday. During the weekend, near-blizzard. conditions may briefly affect the northern Plains, where high winds will accompany a period of snow. Elsewhere, mild, mostly dry weather is forecast into early next week, with the exception of the Northwest, where additional

Account Setup Required



RMA Premium Calculation -- Login

Enter your Login ID and Password, then click Continue.

New users click here.

Login ID: tronstad

Password: ••••••

I forgot my password, please send it to me.



Insurance Plans

("X" indicates supported by online application, "N/A" indicates not applicable)

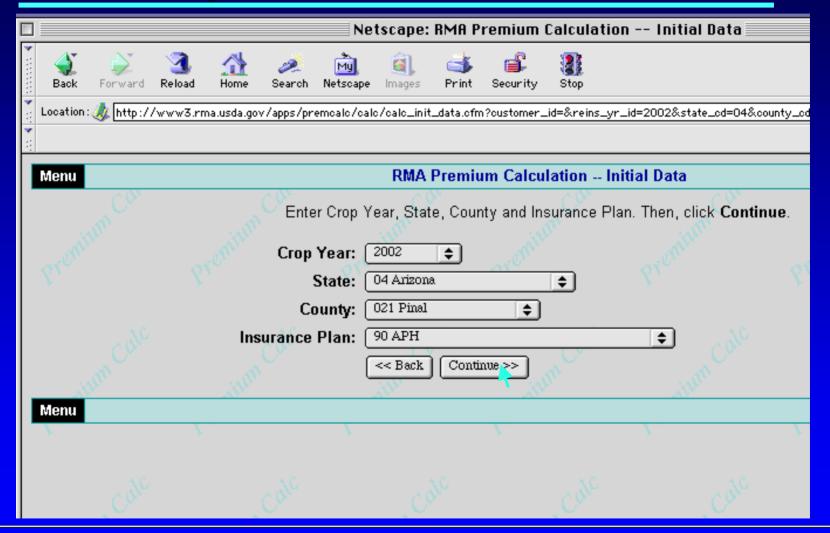
	10 🔍	12 Q	25 및	30 ℃	40 및	41 및	42 Q	43 Q	44 Q	45 Q	46 Q	50 ℃	51 및	55 Q	63 Q	70 및	73 Q	84 Q	86 및	90 및	96 Q
2000:	X 🗸	×	Х	Х	√X	X	X	X	Х	Х	X	Х	Х	X	×	X	Х	×	Х	Х	X
2001:	X	X	Х	X	Х	X	X X	X	Х	Χ.,	⊗X	Х	Х	X	×	X	X.O	Х	Х	Χ.,,	N/A
2002:	X	Х	Х	.€X	Х	X	X	X	Х	X.N	Х	X	X	∀X	X	X	X	Х	Х	X	N/A

NOTE: An account is required to use this application, and allows you to keep your premium calculations for future reference.

This site is best viewed at 800x600 or higher resolution, and uses Arial, Andale Hono and Times New Roman fonts.

If you are unable to view this site correctly, you can download and install these fonts here.

Utilize Pull-Down Menus



Crop, Price Elections, ...

Login ID	Calc ID	Crop Year	Ins	surance Plan	State		
tronstad	tronstad 24701			90 APH	04 ARIZONA		
Menu			Add Ne	w Quote: 004			
30)	300	(A)		300	300		
	Сгор :	0021 COTTON		+			
	Туре :	997 NO TYPE SPE	CIFIED				
	Practice :	002 IRRIGATED					
	Price Election :	100% \$0.50	\$				
	Acres :	500					
	Yield :	1300 (LB	S)				
	Rate Yield :	1300					
	Share :	1.000					
Yield C	iup Surcharge :						
		YA YIELD ADJUSTMEN	PT 60% 1.000				
	Options :	• : · · · · · · · · · · · · · · · · · ·					
Additional Co	overage Rates :	None Available					
Мар Аге	eas/High Risks:	None Available					

Current AZ Crop Insurance Options

1999
Arizona
Crop
Insurance
Profile

Ine	ııra	hla	cro	ne
1115	ura	nie	CIO	ps

Apples
Barley
Citrus: 8 types of fruit
Corn
Cotton & ELS Cotton
Nursery
Potatoes
Table Grapes
Wheat

Types of policies/crops:

- CRC
 - Wheat
 - Cotton
 - Corn
- Dollar
 - Nursery

Insured acres

58,790

35,290

23,500

0

13 policies

New crop pilot programs

Chile Peppers (2000 crop year)

Cochise

NAP/Disaster Assistance

The Noninsured Crop Disaster Assistance Program (NAP)

NAP is for crops for which crop insurance is not available. It provides assistance for farmers who grow such crops, limiting their losses from natural disaster and helping to manage their overall business risk.

NOTE: To be eligible for assistance in the event of a disaster, you must provide certain information to FSA annually, before a disaster occurs. See below.

What Crops Are Eligible for Protection Under NAP?

Eligible crops include agricultural commodities that are:

- Grown for food;
- Planted and grown for livestock consumption, including but not limited to grain and seeded and native forage crops;
- Grown for fiber, except for trees; and
- Specialty crops, such as aquaculture, floriculture, ornamental nursery, Christmas trees, turf for sod, industrial crops, and seed crops used to produce crops that are eligible for NAP. [TOP]



NAP Eligibility

How Do I Become Eligible for Protection Under NAP?

Producers who want protection under NAP must make certain required crop information available to FSA every year by the established program reporting deadlines. They must also maintain certain farm production records throughout the year.

To ensure that they will be able to take advantage of assistance under NAP, should it become available, producers must meet all program requirements.

Specifically, to be eligible for NAP, producers must:

- Accurately report the acreages and shares for all crops potentially eligible for NAP on or before the required deadline (contact local FSA county offices for acreage reporting dates);
- Report crop losses within 15 days of the date disaster occurs or the date crop damage becomes apparent;
- Certify crop production history and report current crop year production;
- Earn not more than \$2 million in annual gross revenue per "person," as defined by FSA, in the operation;
- Certify that they comply with all highly erodible land and wetland conservation requirements;
- Request measurement service if needed; and
- Request payments by the acreage reporting date of the year following the year of the disaster. [TOP]

NAP Assistance

- No up-front fee or premium required.
- Greater than 35% of area in county impacted by natural disaster.
- Pay for yield less than 55% of normal at 55% of avg. mkt. price.

Crop Insurance Value for AZ

For each dollar spent by AZ producers (admin. fee & premiums) what was the return?

	\$ spent	All Crops
1995	<i>\$1.00</i>	<i>\$3.59</i>
1996	<i>\$1.00</i>	<i>\$1.99</i>
<i>1997</i>	<i>\$1.00</i>	<i>\$3.04</i>
1998	<i>\$1.00</i>	<i>\$1.59</i>
1999	<i>\$1.00</i>	<i>\$3.38</i>
<i>2000</i>	<i>\$1.00</i>	<i>\$0.93</i>
<i>2001</i>	<i>\$1.00</i>	<i>\$1.41</i>

Crop Insurance Value for AZ

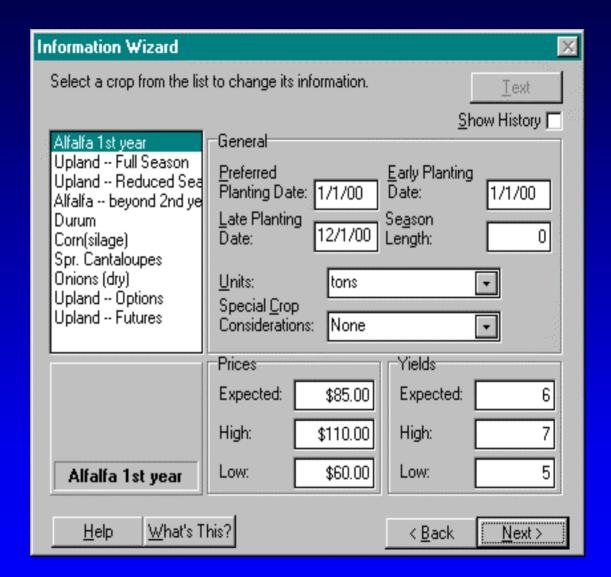
For each dollar spent by AZ producers (admin. fee & premiums) what was the return?

	\$ spent	All Crops	APH Cotton
1995	\$1.00	<i>\$3.59</i>	<i>\$3.37</i>
1996	\$1.00	\$1.99	<i>\$2.19</i>
<i>1997</i>	\$1.00	<i>\$3.04</i>	<i>\$2.78</i>
1998	\$1.00	<i>\$1.59</i>	<i>\$1.78</i>
1999	\$1.00	\$3.38	<i>\$0.98</i>
2000	\$1.00	<i>\$0.93</i>	<i>\$0.97</i>
<i>2001</i>	<i>\$1.00</i>	<i>\$1.41</i>	<i>\$0.36</i>

Ag Decisions Program

- · Several Cropping Options
- Diversification
- % of Profits by Crop?
- · Start small: build bigger

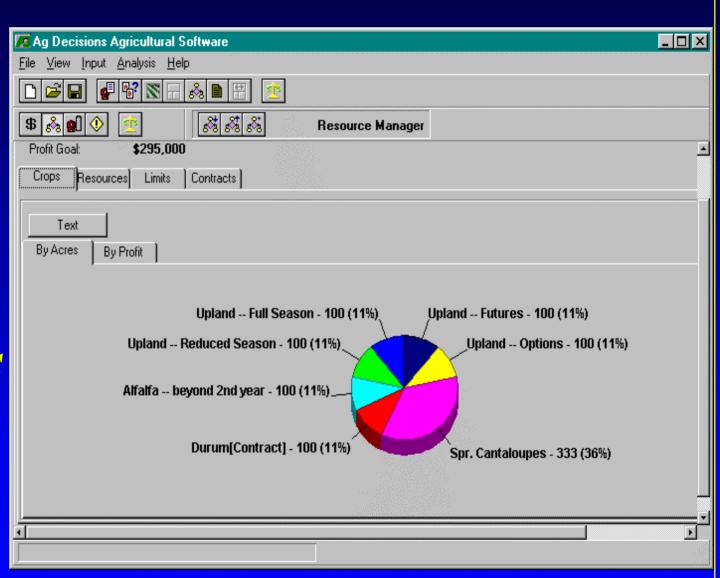
Diversification Example



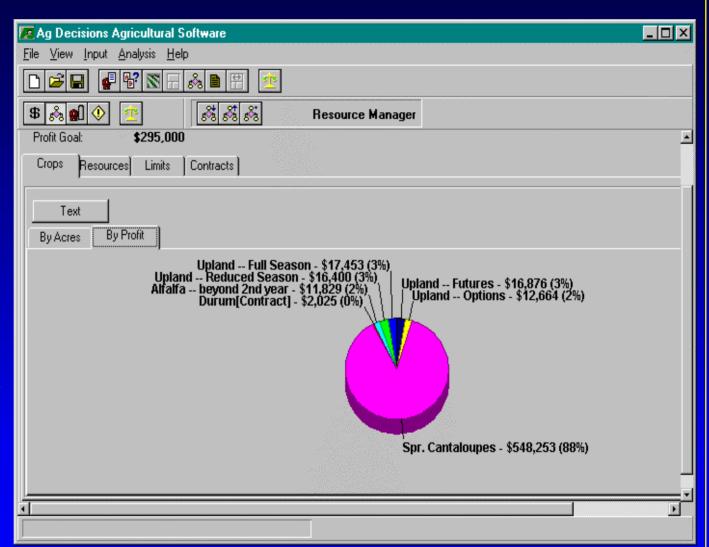
Acreage Limits

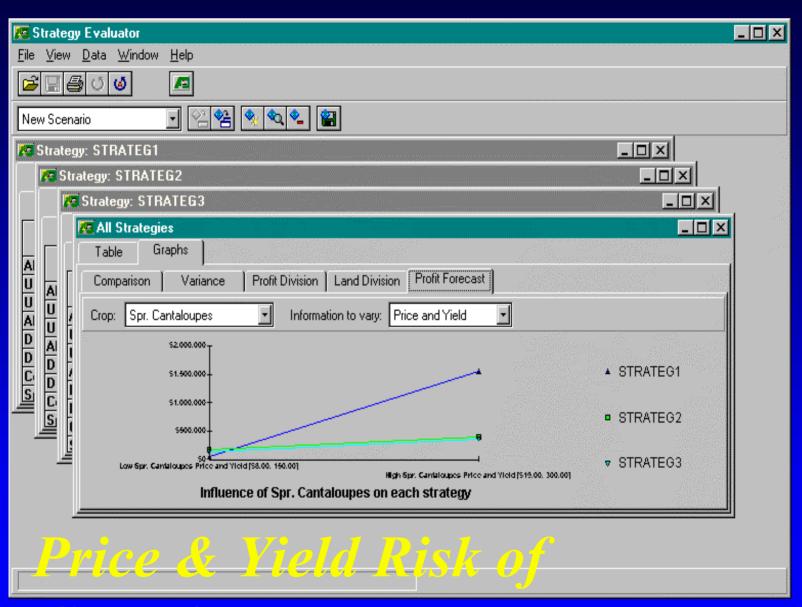


Crop
Mix
by
Acres

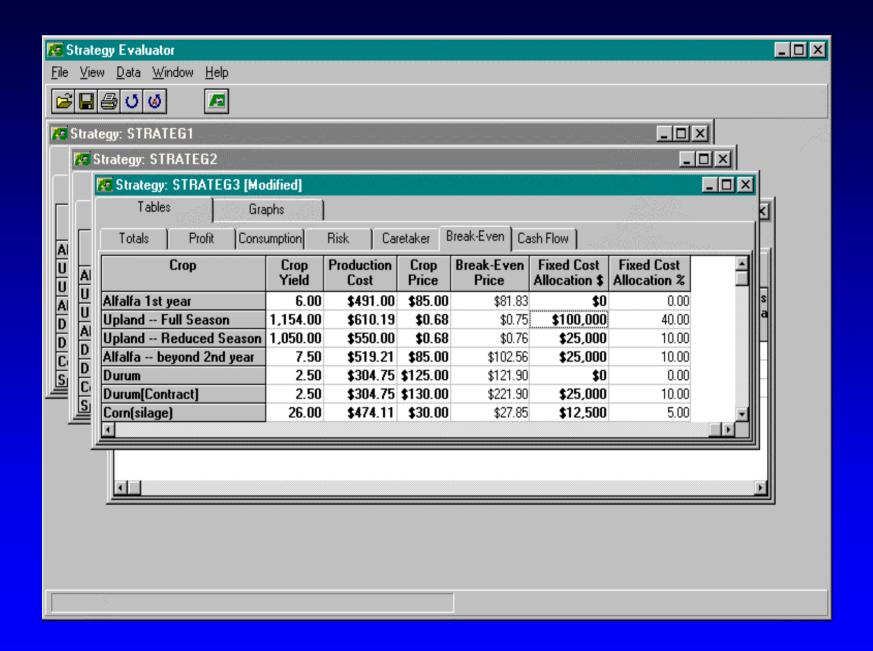


Crop
Mix
by
Profit



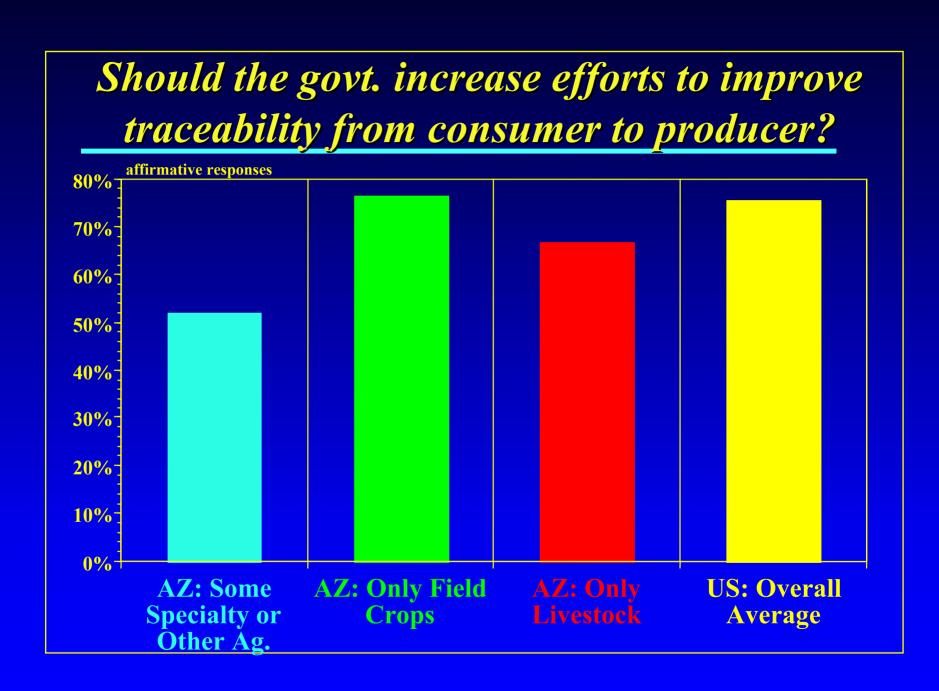


Cantaloupes



Challenges & Opportunities Ahead

- Discriminating Consumer Preferences
- Rural-Urban Interfaces.
- New Technologies
 - -- GIS/GPS
 - -- Tractor guidance systems
- Food Safety and Tracking



Future Workshops 2003

- El Central (TBA)
- Yuma (TBA)
- Dewey Feb. 24th
- Parker (TBA)

AZ's Crop Insurance Profile

Percent participation/top 3 insurable crops:

- By acreage (total NASS planted acres)
 - Cotton/250,000 acres
 - · Wheat/85,000 acres
 - Barley/63,000 acres

Insured acres (%)

94

71

52

Misleading #'s since many policies are CAT (50% yield and 55% price election)

Crop Insurance Discounts

◆ Govt. has always paid for 100% of CAT premium -- modest sign-up fee.

100% price election: at least 50¢ for 2002

Yield 50% 60% 70% 80% 85% Coverage

Subsidy 74% 71% 67% 58% 50%

AZ's Crop Insurance Profile, 1999

		INS	UNITS	NET	TOTAL	LOSS		LOSS	Prod. Ret. /
		SOLD	ACRES	LIABILITY	PREMIUM	SUBSIDY	INDEMNITY	RATIO	\$ Spent
APPLE	APH	19	3,005	3,849,036	562,863	320,828	445,564	0.79	1.83
BARLY	APH	335	32,996	2,158,440	81,000	58,952	25,651	0.32	0.61
CORN	APH	129	27,132	2,545,525	132,360	128,858	0	0	0.00
COTTN	APH	660	206,666	74,900,081	3,501,149	2,199,448	1,317,599	0.38	0.98
COTTN	CRC	26	22,008	15,772,657	1,108,459	474,104	4,669,661	4.21	7.34
ELSCT	APH	207	7,155	2,283,822	118,672	89,713	48,244	0.41	1.17
GRAPF	APH	27	1,283	420,998	26,319	26,231	18,934	0.72	11.09
LEMON	APH	49	5,568	3,963,823	252,400	252,400	6,610	0.03	2.25
MANDN	APH	22	665	432,902	84,522	74,157	0	0	0.00
MNTNG	APH	46	1,660	763,066	84,478	67,917	58,853	0.7	3.05
NORNG	APH	43	1,770	582,240	34,069	26,943	276	0.01	0.03
NRFGC	FD	8	0	5,961,109	17,874	15,810	0	0	0.00
NRSRY	FD	9	5	3,058,795	27,529	21,815	0	0	0.00
ORTNG	APH	16	256	267,691	33,932	29,500	32,973	0.97	6.12
PTATO	APH	44	6,508	5,732,925	432,113	290,336	537,089	1.24	3.72
SWORG	APH	19	227	64,428	7,785	7,785	1,110	0.14	0.97
TGRAP	APH	4	2,104	2,635,393	92,383	92,383	0	0	0.00
VLORG	APH	29	1,585	346,991	30,811	27,193	4,572	0.15	0.85
WHEAT	APH	329	25,369	2,474,477	88,609	77,131	3,082	0.03	0.10
WHEAT	CRC	127	35,290	13,194,256	1,139,906	428,921	3,903,978	3.42	5.43
Totals:	AZ	2,148	381 ,252	141,408,655	7,857,233	4,710,425	11,074,196	1.41	3.38

AZ's Crop Insurance Profile (1997)

		INS	UNITS	NET	TOTAL	LOSS		LOSS	Prod. Ret. /
		SOLD	ACRES	LIABILITY	PREMIUM	SUBSIDY	INDEMNITY	RATIO	\$ Spent
APPLE	APH	21	3,198	2,711,537	307,715	167,412	1,052,629	3.42	7.45
BARLY	APH	374	52,301	3,129,785	132,710	101,182	132,259	1	2.63
CORN	APH	138	24,725	2,294,835	118,835	115,327	0	0	0.00
COTTN	APH	789	256,157	90,442,577	3,853,724	2,216,402	4,663,090	1.21	2.78
COTTN	CRC	9	4,672	2,663,002	237,527	48,263	818,481	3.45	4.31
ELSCT	APH	299	17,575	5,987,649	327,581	243,760	36,531	0.11	0.37
GRAPF	APH	22	146	506,779	26,905	26,785	28,569	1.06	23.42
LEMON	APH	39	345	3,761,963	255,158	254,333	0	0	0.00
MANDN	APH	14	50	193,265	36,733	29,425	9,966	0.27	1.24
NRSRY	DO	7	89	881 ,946	21,966	21 ,375	0	0	0.00
ORANG	APH	81	293	602,718	47,216	42,845	25,932	0.55	3.08
PTATO	APH	41	4,505	2,773,323	162,391	153,680	0	0	0.00
TANGE	APH	39	150	364,301	37,232	32,385	58,247	1.56	8.57
TGRAP	APH	27	2,090	2,778,731	104,741	104,741	0	0	0.00
WHEAT	APH	482	62,332	6,299,737	219,667	180,519	92,304	0.42	1.46
Totals:	AZ	2,382	428,628	125,392,148	5,890,101	3,738,434	6,918,008	1.17	3.05

Upland Payout for 2 AZ Counties

<u>Marico</u>	<u>pa</u>	\$ spent	minimum <u>CAT</u>	BuyUp	<u>CRC</u>
	1997	\$1.00	\$0.00	<i>\$3.19</i>	<i>\$4.39</i>
	1998	\$1.00	\$0.00	<i>\$3.45</i>	\$0.00
	1999	\$1.00	\$0.00	<i>\$2.89</i>	\$8.07
	2000	\$1.00	\$0.00	<i>\$0.21</i>	\$0.00
	2001	\$1.00	\$0.00	\$0.05	\$0.97
<u>Pinal</u>	<i>1997</i>	<i>\$1.00</i>	<i>\$0.00</i>	<i>\$0.00</i>	n/a
	1998	<i>\$1.00</i>	\$0.00	\$0.00	n/a
	1999	\$1.00	\$0.00	\$0.38	\$7.05
	2000	\$1.00	<i>\$9.34</i>	<i>\$1.79</i>	\$0.00
	2001	<i>\$1.00</i>	\$0.00	<i>\$0.62</i>	\$0.00

Insurance Mix for all AZ Crops

	<u>CAT</u>	BUP
<i>1995</i>	<i>1,913</i>	<i>373</i>
1996	2,087	<i>398</i>
<i>1997</i>	1,738	<i>460</i>
1998	1,605	<i>540</i>
1999	1,430	<i>742</i>
2000	1,382	<i>781</i>
<i>2001</i>	<i>1,206</i>	<i>670</i>

Insurance Mix for AZ Cotton

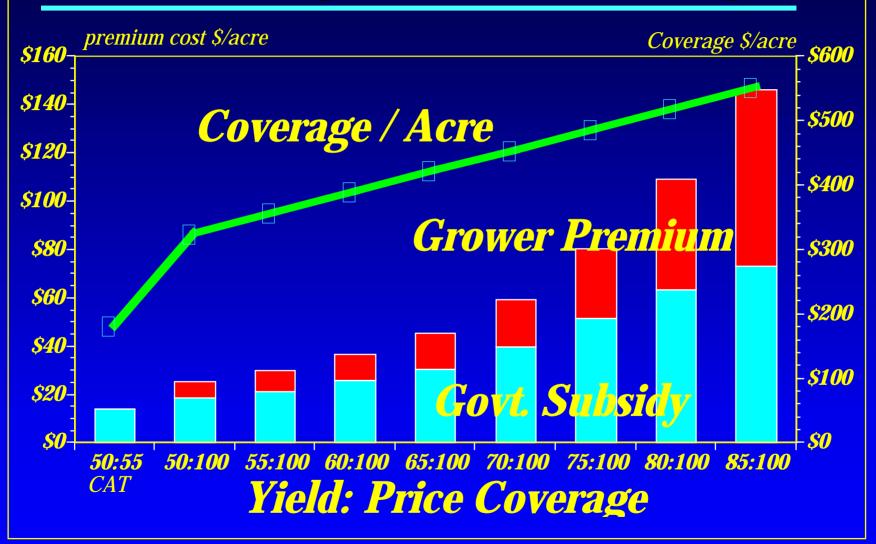
	2001 Policies	Acres
	Insured	Insured
Catastrophic	<i>296</i>	82,994
APH Buyup	<i>312</i>	134,109
Crop Rev. Cov.	55	<i>25,983</i>

- ♦ Although CAT coverage accounts for 45% of policies it only accounts for 34% of acreage.
- **♦** CRC accounts for only 8% of policies but 11% of acreage.

A Look at AZ Upland Options

- ★ Actual Production History(APH)
 - + CAT 50:55 (yld %:price%)
 - + Buyup 85:100
- ◆ Crop Revenue Coverage (CRC)

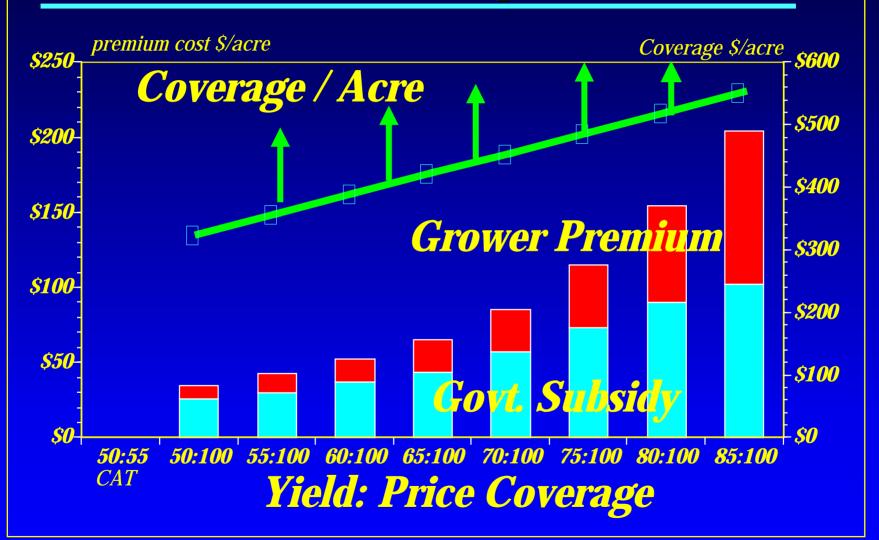
APH 02 crop: 1,300 lbs, Maricopa



Crop Revenue Coverage

- ★ Insures for revenue: price & yield combinations can trigger an indemnity payment.
- ◆ Pay for yield losses at a higher price than at planting if prices rise by harvest time.

CRC: 1,300 lbs. \$.50 price election



Upland Subsidies (\$/acre)

	<u>APH</u>	<u>CRC</u>	% of Prem
<i>50:55</i>	14.15		100%
<i>50:100</i>	18.57	25.89	74%
60:100	26.15	<i>37.30</i>	71%
70:100	39.89	<i>57.44</i>	67%
80:100	63.63	90.26	58%
<i>85:100</i>	73.42	102.85	50%

CRC Price Election for 2002

♦ Jan. 15 - Feb. 15 Futures

		Dec. Fut in	Price E	Election
	ELS	January	<u>APH</u>	<u>CRC</u>
1999	<i>\$1.00</i>	\$.63	<i>\$.64</i>	n/a
2000	<i>\$0.83</i>	<i>\$.60</i>	<i>\$.59</i>	<i>\$.61</i>
2001	\$1.00	\$.61	<i>\$.60</i>	<i>\$.61</i>
2002	\$0.83	\$.43	<i>\$.50</i>	??

20% Yield Shortfall & 20% Price Shortfall (1, 040 lbs./acre)

<u>APH</u>	$\frac{50:55}{CAT}$	<i>50:100</i>	<i>70:100</i>	<i>85:100</i>
Coverage	\$182	<i>\$325</i>	<i>\$455</i>	<i>\$553</i>
Indemnity	\$0.00	\$0.00	\$0.00	\$32.5
<u>CRC</u>				
Min. Cov.		<i>\$325</i>	\$455	<i>\$553</i>
Indemnity		<i>\$0.00</i>	\$39.0	\$136.5

Assumes approved yield of 1,300 lbs./acre and base price of 50¢/lb. for both policies.

40% Yield Shortfall & 25% Price Increase (780 lbs./acre)

<u>APH</u>	$\frac{50:55}{CAT}$	<u>50:100</u>	<i>70:100</i>	<i>85:100</i>
Coverage	\$182	<i>\$325</i>	<i>\$455</i>	<i>\$553</i>
Indemnity	\$0.00	\$0.00	\$65.0	\$162.5
<u>CRC</u>				
Min. Cov.		<i>\$325</i>	<i>\$455</i>	<i>\$553</i>
Indemnity		\$0.00	\$81.3	\$203.1

Assumes approved yield of 1,300 lbs./acre and base price of $50\phi/lb$. for both policies.