



Southern Region



Risk Management
Education Center

Risk Management Education



Risk Management Education Series Fact Sheet 1

An Overview of Louisiana Crop Insurance

Since 1989, Louisiana producers have been offered an increasingly diverse selection of crop insurance products. They responded by increasing the acres in crop production covered by insurance products. The oldest insurance plan, Actual Production History (APH), originally covered only ten crops when it started. In recent years, twelve crops have been insured under various plans, including: corn, cotton, grain sorghum, nursery plants, oats, peanuts, rice, soybeans, sugarcane, strawberries, sweet potatoes, and wheat. This fact sheet will describe insurance products available for seven major crops in Louisiana.

1. Trends of Seven Major Crops

Of the major commodities grown in Louisiana over the past six years, corn and cotton generally had consistently high percentages of acres insured (table 1). Though acres planted to corn varied over that time (315,000 to 580,000 acres), more than 93 % of corn acres were covered under at least one type of insurance plan. The liability (the maximum payout possible from the insurance provider), premium, and government subsidies on a per acre basis had increased gradually from 2000 to 2004, before decreasing in 2005. In 2002, the average premium for corn was \$16.12 per acre including a government

subsidy of \$9.80 per acre. That same year, corn producers received an average indemnity (the amount farmers receive to cover any losses) of \$25.68 per acre.

At least 96% of cotton acres were covered under some insurance plan during the past six years. Planted acreage of cotton ranged from 500,000 to 870,000, peaking in 2001. Liability for cotton ranged from \$182 to \$254 per acre. Premiums per acre ranged from \$16 to \$23, while government subsidies ranged from \$8 to \$12 dollars per acre. The loss ratio, which indicates the amount of money paid to farmers, divided by premiums, fluctuated greatly over the past six years.

Planted acreage for sorghum decreased dramatically over the past six years. However, 85% of sorghum acreage was covered by some crop insurance plan. Liability ranged from \$61 to \$89 per acre. The premium per acre remained under \$11 dollars while government subsidies covered costs of more than \$6 per acre over each of the most recent four years. In 2002, farmers received around \$3 dollars per \$1 paid for a premium – representing a loss ratio of 2.92. This dropped to 0.40 by 2005.

* Seon-Ae Kim, John Westra, and Kurt Guidry, Dept. of Agricultural Economics and Agribusiness, Louisiana State University Ag Center, Baton Rouge, LA 70803.

Table 1. Summary of crop insurance for seven major crops in Louisiana.

Year	Acres Planted ^a	Acres Insured ^a	Percentage Insured	Policy Sold	Liabilities per Acre	Premium per Acre ^b	Subsidy per Acre	Indemnity per Acre	Loss Ratio
Corn									
2000	380	355	94	4,008	104.53	10.01	4.44	10.33	1.03
2001	315	306	97	3,950	120.41	13.03	8.29	5.13	0.39
2002	580	555	96	4,235	137.10	16.12	9.80	25.68	1.59
2003	520	499	96	4,151	141.23	16.65	10.26	21.39	1.28
2004	420	391	93	4,446	150.35	16.36	10.53	8.66	0.53
2005	340	321	94	4,314	130.51	13.90	9.20	6.06	0.44
Cotton									
2000	710	688	97	4,476	234.93	18.67	8.02	36.51	1.96
2001	870	841	97	4,608	254.28	23.48	13.58	56.11	2.39
2002	520	504	97	4,298	182.56	16.90	10.23	29.57	1.75
2003	525	513	98	4,110	190.46	16.94	10.77	11.55	0.68
2004	500	482	96	4,246	232.56	18.51	12.15	20.19	1.09
2005	610	586	96	4,077	186.90	15.96	10.61	7.53	0.47
Grain Sorghum									
2000	220	194	88	3,388	60.65	6.88	3.12	7.67	1.11
2001	230	211	92	3,588	67.76	7.70	5.04	16.42	2.13
2002	180	161	90	3,485	82.51	10.15	6.28	29.67	2.92
2003	170	156	92	3,548	85.36	10.52	6.60	9.40	0.89
2004	85	82	96	4,062	89.21	10.04	6.58	12.02	1.20
2005	90	76	85	3,958	82.87	9.87	6.42	3.96	0.40
Rice									
2000	485	366	76	3,111	146.85	8.05	3.87	5.11	0.63
2001	548	412	75	3,096	164.70	9.35	5.73	2.40	0.26
2002	540	397	74	3,020	151.75	7.63	4.94	5.12	0.67
2003	455	343	75	2,734	153.53	7.77	5.02	3.58	0.46
2004	538	408	76	2,734	161.87	8.75	5.65	5.51	0.63
2005	530	405	76	2,757	178.55	9.01	5.88	4.65	0.52
Soybeans									
2000	930	809	87	6,359	53.94	9.11	5.72	10.38	1.14
2001	640	561	88	6,096	56.91	9.78	7.24	5.15	0.53
2002	800	694	87	5,729	55.69	9.61	6.99	11.37	1.18
2003	760	762	100	5,598	57.52	10.92	7.78	6.60	0.60
2004	1,100	979	89	5,985	72.09	13.07	9.10	10.42	0.80
2005	880	812	92	5,843	69.98	12.83	8.71	6.93	0.54
Sugarcane									
2000	500	380	76	831	206.17	7.49	6.11	4.58	0.61
2001	495	388	78	858	215.76	8.94	7.61	0.81	0.09
2002	495	377	76	830	194.66	8.04	6.64	1.95	0.24
2003	490	399	81	807	201.83	7.72	6.41	1.35	0.17
2004	465	363	78	767	207.93	7.32	6.18	3.53	0.48
2005	455	336	74	729	192.20	6.78	5.73	1.60	0.24
Wheat									
2000	200	122	61	1,607	51.04	9.12	4.76	4.16	0.46
2001	175	113	65	1,580	49.20	9.22	6.10	5.66	0.61
2002	230	149	65	1,753	56.30	9.31	6.27	7.55	0.81
2003	155	139	89	2,075	64.96	12.13	7.75	21.70	1.79
2004	180	122	68	2,255	65.63	12.03	7.90	7.12	0.59
2005	110	94	86	2,202	68.17	13.75	8.81	15.15	1.10

Source: USDA-RMA, Summary of Business Report.

Notes: a Units of acres planted and insured are thousand acres. Sugarcane is acres harvested, not planted.

b. Premiums per acre include farmer's premiums and the government subsidy for that coverage.

Acreage planted to rice has remained relatively stable. The percentage of insured acres remained stable over the past six years at 75%. The loss ratio for rice did not exceed 0.67 over that period.

Soybeans had a greater percentage of insured acreage than did rice, ranging from 87% to 100%. In 2005, premiums for soybeans were \$13 per acre, government subsidized those premiums by nearly \$9 per acre, and farmers received \$7 per acre for the loss.

Acres of sugarcane harvested in the past six years gradually decreased. Farmers received on average of \$0.61 per dollar paid in premiums in 2000. The loss ratio for other years was under 0.50.

Wheat acreage has fluctuated from 110,000 acres to 200,000 acres since 2000. The insured acreage level generally increased, except in 2004. In 2003, farmers received almost \$22 per acre compared to \$12 paid as premium, resulting in an average loss ratio of 1.79.

2. Crop Insurance in 2005

On the next page, Table 2 presents a summary of the insurance for the seven major crops in Louisiana for 2005. For corn, more than two thirds of insured acres were under a buy-up policy, which included revenue assurance (RA), crop revenue coverage (CRC), and actual production history (APH).

Available insurance plans for cotton were Group Risk Plan (GRP), RA, CRC and APH. Almost half of insured acres for cotton were covered under APH catastrophic (CAT) coverage. Among buy-up plans APH was the most popular plan with 1,790 policies sold, covering more than 200,000 acres.

Grain sorghum had CRC and APH coverage plans in 2005. The average premium for CRC was \$14.45 per acre while the government subsidy was

\$8.85. In terms of the number of policies sold, more than one third of policies were APH CAT coverage. This accounted for 22% of the grain sorghum acreage that was insured.

Rice had the RA and two APH plans in 2005. Risk assurance plan covered only 5% of acreage insured. There was more than a \$10 difference in the premiums paid between RA and APH buy-up plan.

Soybeans had five plans: GRP, RA, CRC, APH buy-up, and APH CAT. However, the majority of policies sold were the two APH plans.

Sugarcane had only the two APH plans. The loss ratio was 0.63 for APH buy-up and 0.03 for APH CAT.

Wheat had CRC and the two APH plans. Each plan accounts for one thirds of the insured acreages. Indemnity for APH buy-up was \$23.78 per acre.

3. Crop Specific Trends

In this section, we present six year trends of seven major Louisiana crops. Two charts will be presented for each crop: 1) percentage of acreage insured by insurance plans and 2) percentage of policies sold by coverage levels.

Corn The percentage of acreage insured under APH CAT coverage was roughly 30% for corn (figure 1). Until 2002, CRC steadily increased, though it decreased notably in 2004 and 2005. The CRC coverage seems to have been replaced by RA plan in 2004 and 2005.

In terms of coverage level, the 50% CAT plan accounted for more than 30% of policies sold each year over the past six years (figure 2). The most common coverage levels among buy-up plans were 60% or 65%. Though less than 10% in 2000, the proportion of 70% and 75% buy-up coverage levels bought has increased recently to more than 20%.

Table 2. Summary of insurance products for seven major crops in Louisiana for 2005.

Insurance Plans	Delivery Type	Policy Sold	Acres Insured	Liabilities per Acre	Premium per Acre	Subsidy per Acre	Indemnity per Acre	Loss Ratio
Corn								
RA	RBUP	458	32,237	174.17	29.02	16.74	37.00	1.27
CRC	RBUP	1,055	67,749	162.93	19.38	11.96	7.09	0.37
APH	RBUP	1,493	114,277	149.05	14.14	8.83	2.05	0.14
APH	RCAT	1,308	106,386	76.74	5.55	5.55	0.34	0.06
Cotton								
GRP	RBUP	21	7,419	601.64	20.13	11.10	0.00	0.00
RA	RBUP	652	84,699	239.96	34.38	19.23	22.10	0.64
CRC	RBUP	87	8,067	217.07	24.53	15.32	0.57	0.02
APH	RBUP	1,790	200,592	248.03	21.22	12.72	12.46	0.59
APH	RCAT	1,527	284,841	116.42	6.42	6.42	0.12	0.02
Grain Sorghum								
CRC	RBUP	1,186	27,634	95.41	14.45	8.85	6.27	0.43
APH	RBUP	1,438	31,863	90.96	9.23	5.82	3.85	0.42
APH	RCAT	1,334	16,838	46.98	3.57	3.57	0.38	0.11
Rice								
RA	RBUP	204	20,253	263.42	23.56	13.65	16.39	0.70
APH	RBUP	1,265	184,913	249.40	13.45	7.68	7.26	0.54
APH	RCAT	1,288	200,059	104.47	3.43	3.43	1.06	0.31
Soybeans								
GRP	RBUP	9	1,535	221.26	7.10	4.07	0.00	0.00
RA	RBUP	167	24,714	96.49	23.36	13.71	14.41	0.62
CRC	RBUP	913	185,353	91.57	19.41	12.26	12.41	0.64
APH	RBUP	2,407	364,910	76.81	13.41	8.54	7.52	0.56
APH	RCAT	2,347	235,421	38.64	5.67	5.67	0.95	0.17
Sugarcane								
APH	RBUP	128	49,400	372.19	17.64	10.53	11.12	0.63
APH	RCAT	601	286,662	161.18	4.90	4.90	0.14	0.03
Wheat								
CRC	RBUP	822	31,566	84.20	17.72	10.70	15.30	0.86
APH	RBUP	683	32,325	79.53	18.35	10.82	23.78	1.30
APH	RCAT	697	30,298	39.34	4.71	4.71	5.80	1.23

Source: RMA, Summary of Business Report.

3. Crop Specific Trends

In this section, we present six year trends of seven major Louisiana crops. Two charts will be presented for each crop: 1) percentage of acreage insured by insurance plans and 2) percentage of policies sold by coverage levels.

Corn The percentage of acreage insured under APH CAT coverage remained around 30% for corn (figure 1). Until 2002, CRC steadily increased, however it decreased sharply in 2004 and 2005.

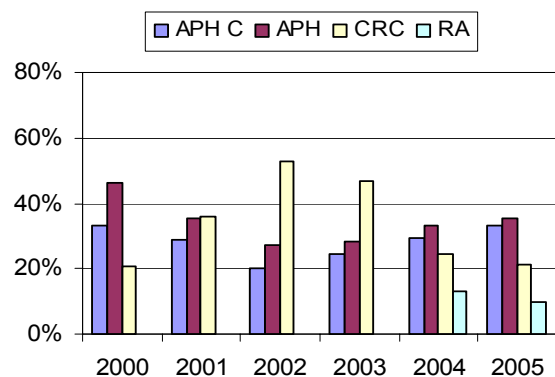


Figure 1. Percentage of acreage insured by insurance plans in Louisiana: **Corn**

The CRC coverage appears to have been replaced by RA plan in 2004 and 2005.

In terms of coverage level, the 50% CAT plan constituted more than 30% of policies sold during the past six years (figure 2). The most commonly chosen coverage levels among buy-up plans were 60% or 65%. The proportion of 70% and 75% buy-up coverage levels was less than 10% in 2000, but it has increased to more than 20% recently.

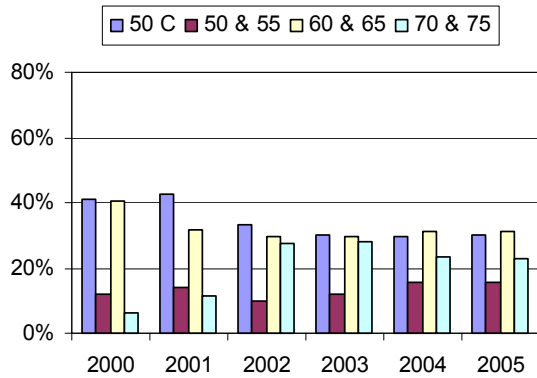


Figure 2. Percentage of policies sold by coverage levels: **Corn**

Cotton Until 2002, APH CAT and APH buy-up plans constituted more than 97% of cotton acreage (figure 3). In 2003, RA plans became available and appeared to have caused significant drop in the APH buy-up plans purchased. Since 2004, the proportion of APH buy-up plans has gradually increased and the proportion of the RA plans has decreased.

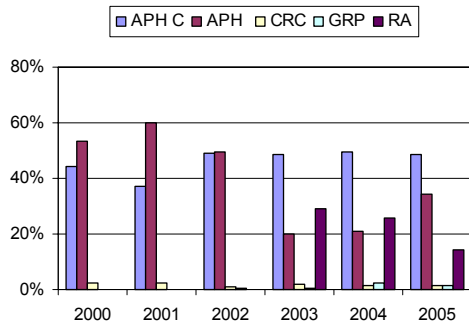


Figure 3. Percentage of acreage insured by insurance plans in Louisiana: **Cotton**

Cotton buy-up coverage extends up to 80%, 85%, and 90% (figure 4). The highest level of coverage for cotton (90%) appeared in 2001. Fewer than 30 policies with 90% coverage level have been sold each year. The 50% CAT coverage had the highest proportion of policies sold with more than 55% in 2001 and almost 40% in 2005.

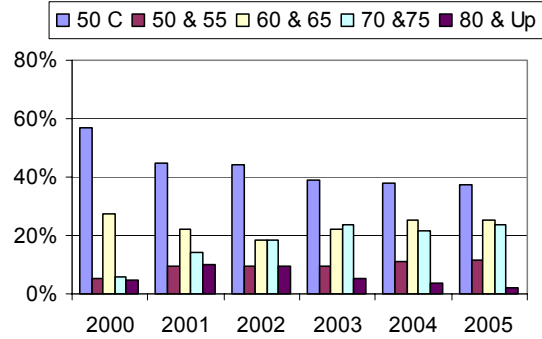


Figure 4. Percentage of policies sold by coverage levels: **Cotton**

Grain Sorghum The proportion of APH CAT coverage for grain sorghum has decreased over the past six years, from 36% to 22% (figure 5). Similarly, the proportion of APH buy-up has dropped. The proportion of CRC coverage peaked with 50% in 2003. There were no RA plans for grain sorghum during this time.

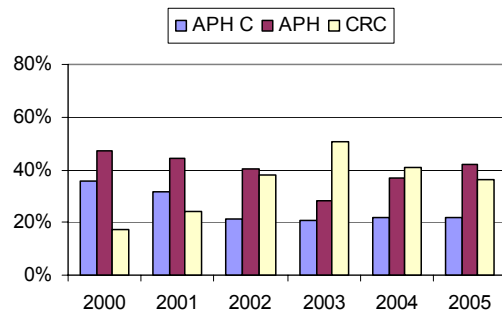


Figure 5. Percentage of acreage insured by insurance plans in Louisiana: **Grain Sorghum**

Grain sorghum insurance has coverage levels similar to corn and has levels up to 75% (figure 6). More than one-third of policies sold had 50% CAT coverage.

The second most chosen coverage level was 60% or 65%. Proportion of higher coverage levels (70 or 75%) increased from 5% to almost 20%; similar to corn.

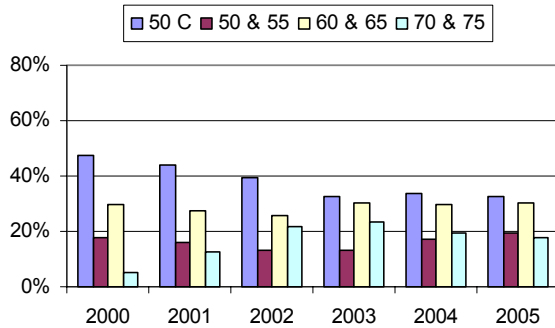


Figure 6. Percentage of policies sold by coverage levels: **Grain Sorghum**

Rice Insurance products for rice are dominated by the APH CAT and APH buy-up insurance plans (figure 7). The proportions of CRC and RA have increased gradually in the past six years.

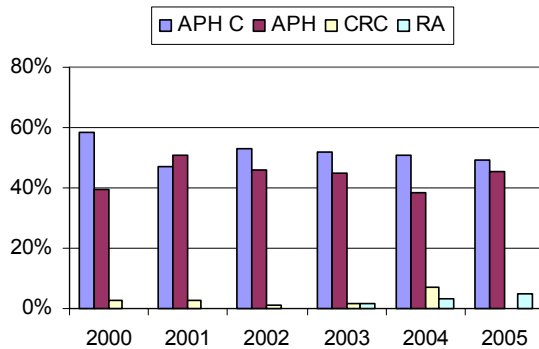


Figure 7. Percentage of acreage insured by insurance plans in Louisiana: **Rice**

Rice production insurance largely depended on APH CAT coverage, which covers only 50% (figure 8). More than 45% of policies sold were insured under the coverage. Around 20% of policies sold had coverage levels of either 70% or 75%. Although, the proportion is only around 5%, there are 80% and 85% coverage levels in rice insurance.

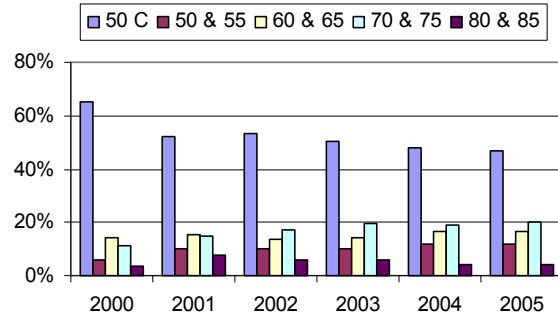


Figure 8. Percentage of policies sold by coverage levels: **Rice**

Soybeans For soybeans, the proportion of APH CAT has decreased from more than 55% to less than 30% in terms of acreage insured. The proportion of soybean acres insured by CRC has increased from 5% to more than 20% (figure 9). APH buy-up coverage remained around 40% over this period.

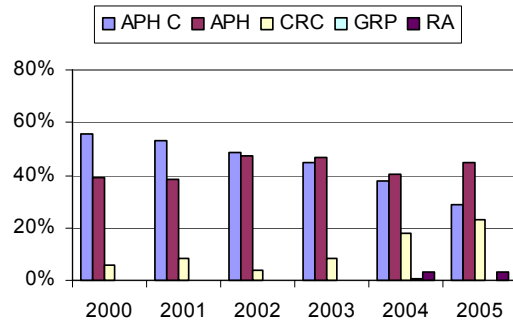


Figure 9. Percentage of acreage insured by insurance plans in Louisiana: **Soybeans**

With soybeans the largest proportion of policies sold had APH CAT coverage. However, over the past five years, the proportion decreased from 60% to 40% (figure 10). The proportion of policies with 50% or 55%, and 60% or 65% coverage has increased from 20 to 25 percent during past six years. The proportion of policies with higher coverage levels (including 70%, 75%, 80% and 90%) has gradually increased from 1% to 7% over the past six years.

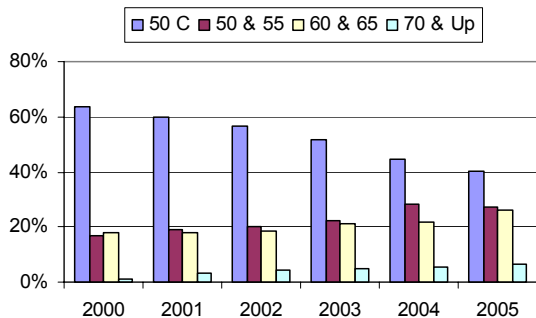


Figure 10. Percentage of policies sold by coverage levels: **Soybeans**

Sugarcane More than 80% of insured sugarcane land in Louisiana has APH CAT coverage with all remaining coverage being APH buy-up (figure 11).

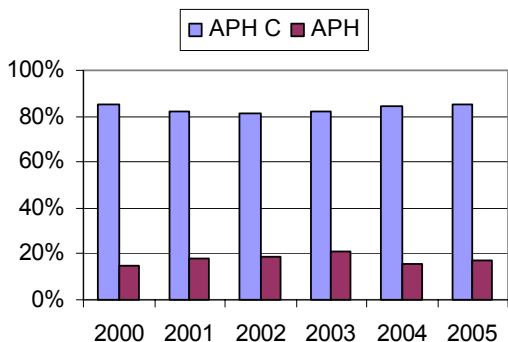


Figure 11. Percentage of acreage insured by insurance plans in Louisiana: **Sugarcane**

For sugarcane, more than 80% of the policies sold were 50% CAT coverage over the past six years (figure 12).

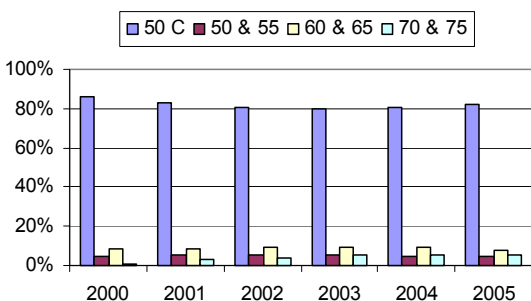


Figure 12. Percentage of policies sold by coverage levels: **Sugarcane**

Wheat Louisiana wheat insurance had three plans during the past six years: APH CAT, APH, and CRC (figure 13). APH CAT constituted the largest percentage of insured acres in 2000, with more than 45%. This has decreased to 32%. The proportion of insured acres under CRC greatly increased in 2003 so that almost one half of insured wheat acreage was covered under CRC. By 2005, insured was fairly evenly split among the three plans.

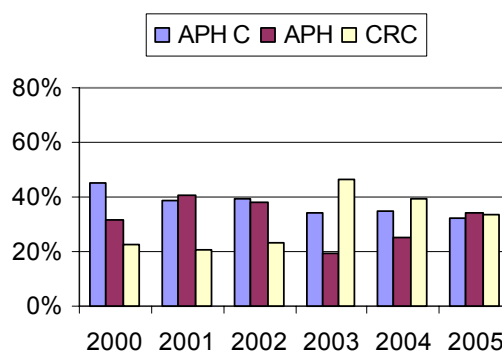


Figure 13. Percentage of acreage insured by insurance plans in Louisiana: **Wheat**

The proportion of 50% CAT coverage for wheat has decreased gradually. The proportion of 60% or 65% coverage level remained about a third of number of policies sold. Higher coverage level (70% or 75%) increased by four times from 5% in 2000 to 20% in 2005.

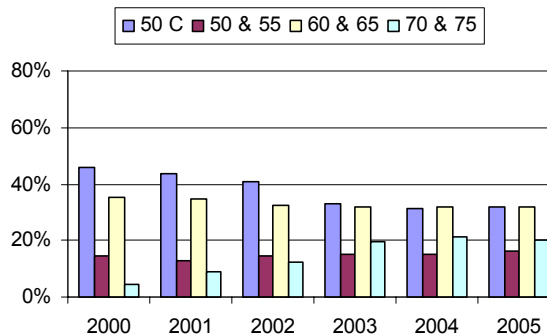


Figure 14. Percentage of policies sold by coverage levels: **Wheat**

4. Summary

Louisiana crop insurance has been developed and diversified since 1989. For the seven major crops of Louisiana, corn, cotton, grain sorghum, and soybeans had relatively higher percentages (80s to 90s) of acreage covered with at least one insurance plan over the past six years. Rice, sugarcane, and wheat had relatively lower coverage rates (mostly 70s).

The loss ratio for the seven major crops ranged from zero to 1.30 in 2005. Premiums per acre ranged from four to 29 dollars and the government subsidized those premiums more than 50% in 2005. For APH CAT for all crops, government subsidy was 100%.

Seven major Louisiana crops had insurance plans including APH CAT, APH buy-up, CRC, GRP and RA over the past six years. The proportion of APH CAT constituted at least more than 20% in all seven crops in terms of acreage insured. For rice and sugarcane APH CAT and APH buy-up plans covered most of acreage insured.

Coverage levels ranged from 50% to 90% for insurance of the seven major crops over the past six years. As sugarcane and rice had a high proportion of APH CAT, 50% CAT coverage constituted the most for the two crops. Coverage levels for other five crops, 60% or 65% coverage levels seem commonly chosen by the farmers.

5. Additional Resources

For more information for general crop insurance information, go to

<http://www.rma.usda.gov/>

and National Crop Insurance Service

<http://www.ag-risk.org/>

(913) 685-2767

To locate a crop insurance providers go to

<http://www3.rma.usda.gov/tools/agents/companies/indexCI.cfm>

For premium calculation, go to RMA's premium calculator web page

<http://www3.rma.usda.gov/apps/premcalc/>

To locate a crop insurance agent, go to

<http://www3.rma.usda.gov/apps/agents/index.cfm>

For any additional information please contact the authors:

John Westra or **Kurt Guidry**

Department of Agricultural Economics
an Agribusiness

Louisiana State University Ag Center
Baton Rouge LA 70803

<http://www.agecon.lsu.edu/>