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CONFLICTS IN LAND USE

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In his paper at the 1983 American Agricultural Economics Association meeting, Don Paarlberg, former USDA director of agricultural economics and policy specialist, charged that farm price support programs were "preferential, profligate, and perennial". In looking at regional conflicts, the preferential criticism may be most relevant.

New technologies, climatic differences, market forces, and government programs can be credited with shifting centers of production of a key commodity from one region to another. Our focus is to look at the conflicts in land use that may be created by the influence of government programs.

Let's look at the major commodities receiving support that are grown in more than one region of the country: wheat, corn, and cotton.

Wheat: In the 35 years since the end of World War II, some definite changes have occurred in wheat acreage. During the '80-'82 period, harvested wheat acreage averaged 76.9 million acres. This was 74 percent above 1970; 48 percent above 1960; and 22 percent above 1950. Among the 11 states with more than two million harvested acres from 1980-82, only two (Colorado and Nebraska) harvested less acreage in the 1980-82 period than they did in 1960.

Although nine of the top 11 states increased acreage, only six harvested as large a share of the total U.S. acreage as they did in 1970 or 1960. If we examine acreage changes in those states harvesting less than two million acres, nine out of ten harvested more wheat in 1980-82 than in 1970. However, only five of ten states had as large a share of harvested acreage as they did in earlier years. The data suggest that under current program influences, plus other factors, fewer states now produce a larger share of the total U.S. wheat output.

From a regional perspective, certain states on the fringes of the Corn Belt (Minnesota, Missouri), the Southeast (Georgia), mid-South (Arkansas), and far west (California) are putting more land in wheat. The share of harvested acreage from the top two states (Kansas and North Dakota) is decreasing.

What is the effect of increased acreage in Montana, Oklahoma, Texas, and Washington? These are traditional wheat states but also have

Table 1.
WHEAT: Harvested Acreage and Share of U.S. Total
1980-82 Compared with 1950, 1960, 1970*

Description	Acreage	Share of U.S. Total
States Over 2 Million Acres		
Kansas	+	–
Minnesota	+	+
Missouri	+	+
Montana	+	–
North Dakota	+	– (50,70) + (60)
Oklahoma	+	+ (50,70) – (60)
South Dakota	+	+ (60,70) – (50)
Texas	+	+
Colorado	–	–
Nebraska	– (50,60) + (70)	–
Washington	+	+ (60) – (50,70)
States Under 2 Million Acres		
Arkansas	+	+
Georgia	+	+
California	+	+
Oregon	+	+
Idaho	+	–
Illinois	+	–
Indiana	+ (70) + (50,60)	–
Michigan	–	–
Ohio	+ (70) – (50,60)	
New Mexico	+	+

* + indicates increase in '80-'82 compared to previous periods
– indicates decrease in '80-'82 compared to previous periods

large areas subject to erosion and soil losses. The pressures to build base acreages for wheat programs may explain some of the increases. In Arkansas and some other southern states, the significant rise in

Table 2.
CORN: Harvested Acreage for Grain
Selected States, 1982 and 1983

	1982	1983		1982	1983
Major States	Thousand acres		Secondary	Thousand acres	
Illinois	11,380	8,000	Georgia	815	770
Indiana	6,320	4,750	Kansas	1,230	970
Iowa	13,150	8,600	Kentucky	1,490	1,050
Michigan	2,820	1,850	Missouri	1,970	1,600
Minnesota	6,500	4,370	North Carolina	1,630	1,350
Nebraska	6,940	5,000	Pennsylvania	1,300	1,150
Ohio	4,060	2,850	Texas	1,140	1,150
South Dakota	2,640	1,700			
Wisconsin	3,350	2,400			
9 State Total	57,160	39,520	7 State Total	9,575	8,040
	1983/1982 = .69			1983/1982 = .84	

Table 3.
COTTON: Acreage Harvested As Share (Pct) of U.S. Total
in Selected States, 1950-1983

State	1950	1960	1970	1980	1981	1982	1983
Texas	37.55	41.32	43.87	52.01	52.15	44.40	47.36
California	3.26	6.18	5.94	11.65	11.05	14.08	13.05
Mississippi	11.38	9.93	10.66	8.51	8.67	10.18	10.14
Louisiana	4.01	3.33	4.03	4.24	5.02	6.12	5.54
Oklahoma	4.46	4.12	4.03	4.28	4.62	4.63	4.43
Arkansas	9.36	8.62	9.59	4.88	4.05	4.01	4.19
Arizona	1.54	2.78	2.45	4.47	4.57	5.21	3.92
Tennessee	3.53	3.34	3.49	2.08	2.20	2.60	2.90
Alabama	7.31	5.62	4.82	2.43	2.69	2.93	2.64
Georgia	5.77	4.27	3.41	1.21	1.26	1.62	1.69
Missouri	2.44	2.69	2.24	1.82	1.32	1.55	1.26
New Mexico	.95	1.31	1.27	.96	.81	.80	.66

wheat acreage is due to expansion of double cropping with winter wheat followed by soybeans.

Corn: In recent years, greater shares of harvested corn acreage are used for grain on the fringes of the Corn Belt (Michigan, Wisconsin) although a decline occurred in Missouri. The major states still maintain about the same share of the total harvested acreage as they did from 1950 to 1970. Greatly increased acreages in Kansas and Nebraska are due to irrigation technology.

An influence on land use and regional differences shows up with some comparisons of acreage changes in 1983 compared to 1982. The nine states harvesting more than two million acres in 1980-82, are expected to harvest 69 percent of their 1982 acreage in 1983. In seven states with less than one million acres in 1980-82, 1983 harvested acreage is expected to equal 84 percent of 1982.

The data in Table 2 show that some southern states — Georgia, Kentucky, North Carolina, and Texas — plus Pennsylvania, Kansas, and Missouri, did not reduce acreage as much as the major corn producing states. The cause of these differences and the effects of policy decisions are appropriate subjects for our discussions. No doubt, the causes for these differences are varied. One explanation is that on the fringes of the Corn Belt, farm operators were more concerned about adequate feed supplies for livestock and did not put as many acres in the RPA program as cash grain farmers.

Cotton: Cotton acreage averaged 12,261,000 from 1980-82. This was higher than 1970 but below 1960 and 1950. For the 1980-82 period, Arizona and California had nearly doubled their share of harvested acreage over the earlier benchmark years of 1950, 1960, and 1970. Texas, Oklahoma, and Louisiana had an increased share of total acreage but less substantial than Arizona and California. The shares of total cotton acreage have declined in Alabama, Arkansas, Georgia, Mississippi, Missouri, New Mexico, and Tennessee.

What are the factors responsible for this regional change? Have public policies been entirely responsible? What other influences such as new technology, costs of production, market prices, or availability of a profitable alternative (soybeans) also contributed?

Although several factors are responsible, the more favorable growing conditions under irrigation in the West and higher relative production costs in the South influenced the change. Soybeans as a more profitable alternative crop in the Southeast certainly contributed to the shift of cotton to the West.

Regional Shift and Policy Education

Regional shifts in land use for wheat, corn, and cotton have occurred since 1950. Discussion and analysis of the causes for these changes have a place in public policy education programs.

When producers are affected, the consequences of policy decisions should be pointed out. The effects upon soil and water conservation become a part of the policy education process.

The role of the policy educator is not to advocate a particular policy choice but to point out the choices, consequences, and effects upon the regions involved and possible reasons for past changes.