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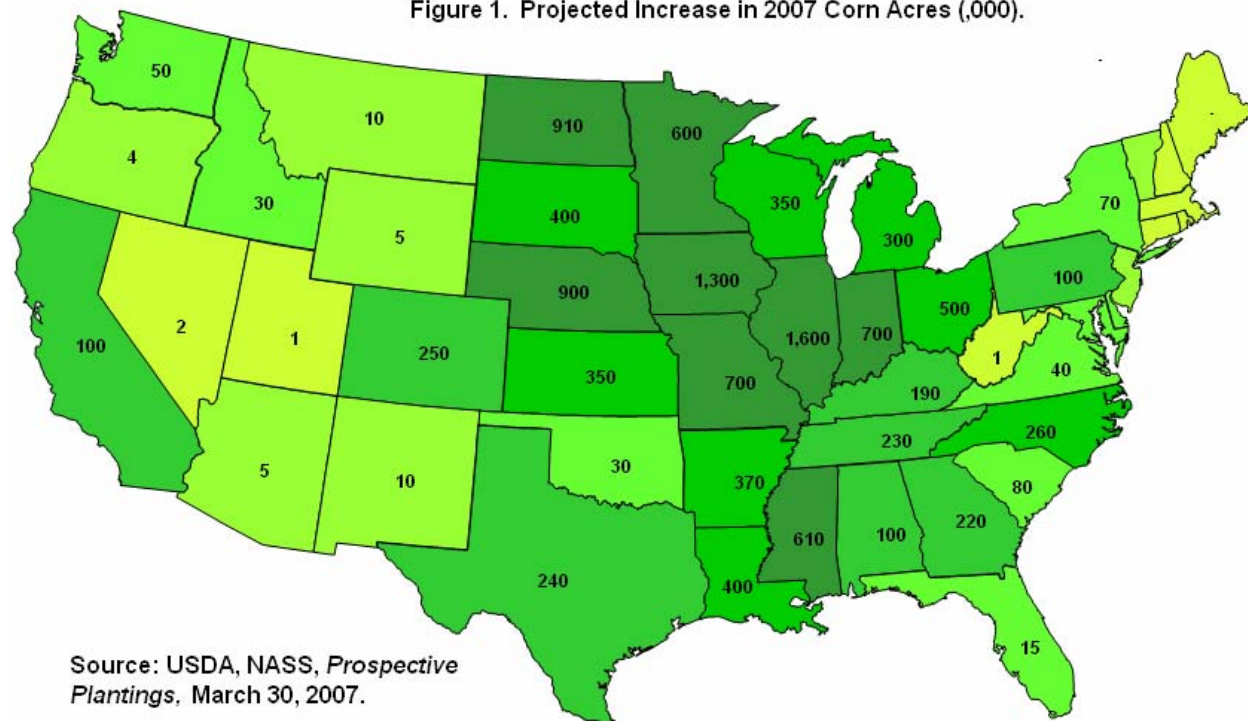
Geographical Distribution of Corn and Soybean Planting Intentions

On March 30th, the National Agricultural Statistical Service (NASS) released its annual *Prospective Plantings* report. NASS projected that corn acres in the U.S. will increase by 12.1 million acres, an increase of 15.5% over 2006 planted acres. Soybean acres were projected to decrease by 8.4 million acres, a decrease of 11.1 percent over 2006 planted acres. NASS projections are used to determine if geographical shifts in corn and soybean production are expected to occur between 2006 and 2007. Regional shifts could impact overall expected U.S. corn and soybean yields.

Projected 2007 Corn Acres

Illinois and Iowa are projected to have the largest increases in corn acres. Illinois is projected to increase acres by 1.6 million and Iowa by 1.3 million (see Figure 1). States with the next largest increases are North Dakota (910 thousand acres), Nebraska (900 thousand acres), Missouri and Indiana (each with 700 thousand acres), Mississippi (610 thousand), and Minnesota (600 thousand).

Figure 1. Projected Increase in 2007 Corn Acres (,000).



Source: USDA, NASS, *Prospective Plantings*, March 30, 2007.

Table 1. Actual 2006 and Projected 2007 Planted Corn Acres.

State	Planted Acres		% of U.S. Acres		Change in U.S. %
	2006	2007	2006	2007	
IA	12,600	13,900	16.1	15.4	-0.7
IL	11,300	12,900	14.4	14.3	-0.2
NE	8,100	9,000	10.3	9.9	-0.4
MN	7,300	7,900	9.3	8.7	-0.6
IN	<u>5,500</u>	<u>6,200</u>	<u>7.0</u>	<u>6.9</u>	<u>-0.2</u>
Five Largest States	44,800	49,900	57.2	55.2	-2.0
SD	4,500	4,900	5.7	5.4	-0.3
WI	3,650	4,000	4.7	4.4	-0.2
KS	3,350	3,700	4.3	4.1	-0.2
OH	3,150	3,650	4.0	4.0	0.0
MO	2,700	3,400	3.4	3.8	0.3
ND	1,690	2,600	2.2	2.9	0.7
MI	2,200	2,500	2.8	2.8	0.0
TX	1,760	2,000	2.2	2.2	0.0
PA	1,350	1,450	1.7	1.6	-0.1
KY	1,120	1,310	1.4	1.4	0.0
CO	1,000	1,250	1.3	1.4	0.1
NC	790	1,050	1.0	1.2	0.2
NY	950	1,020	1.2	1.1	-0.1
MS	340	950	0.4	1.1	0.6
TN	550	780	0.7	0.9	0.2
LA	300	700	0.4	0.8	0.4
CA	520	620	0.7	0.7	0.0
AR	190	560	0.2	0.6	0.4
MD	490	550	0.6	0.6	0.0
VA	480	520	0.6	0.6	0.0
GA	280	500	0.4	0.6	0.2
SC	310	390	0.4	0.4	0.0
AL	200	300	0.3	0.3	0.1
ID	270	300	0.3	0.3	0.0
OK	270	300	0.3	0.3	0.0
Other states	1,117	1,254	1.4	1.4	0.0
US	78,327	90,454			

Source: USDA, NASS, *Prospective Plantings*, March 30, 2007, Cr Pr 2-4.

Overall, the states in the heart of the Corn Belt (Illinois, Indiana, Iowa, Nebraska, and Minnesota) are expected to increase acres by 5.1 million, accounting for 42 percent of the projected increase in acres.

Corn Belt acreage increases lead to changing shares of U.S. acres. In 2006, the five states in the central Corn Belt (Illinois, Indiana, Iowa, Minnesota, and Nebraska) accounted for 57.2 percent of planted acres in the U.S. (see Table 1). This percentage is projected to decline to 55.2 percent in 2007, a decrease of 2

percentage points. States with increasing shares are North Dakota (.7 percentage point increase), Mississippi (.6 increase), Louisiana (.4 increase), Arkansas (.4 increase), and Missouri (.3 increase). In general, share of acreage is shifting to the Delta States, Missouri, and North Dakota.

Regional corn acreage shifts could reduce the expected U.S. yield for 2007 as states with higher expected yields (i.e., the Corn Belt) have smaller acreage shares. Impacts of shifts were evaluated by calculating 2007 trend yields for each state and then calculating expected U.S. yields for two scenarios: one using the acreage share in 2006 and the other using the projected acreage share in 2007. The U.S. expected yield using 2007 projected shares is .5 bushel below the expected yield using 2006 shares. Hence, the expected US yield decreases slightly because of regional production shifts.

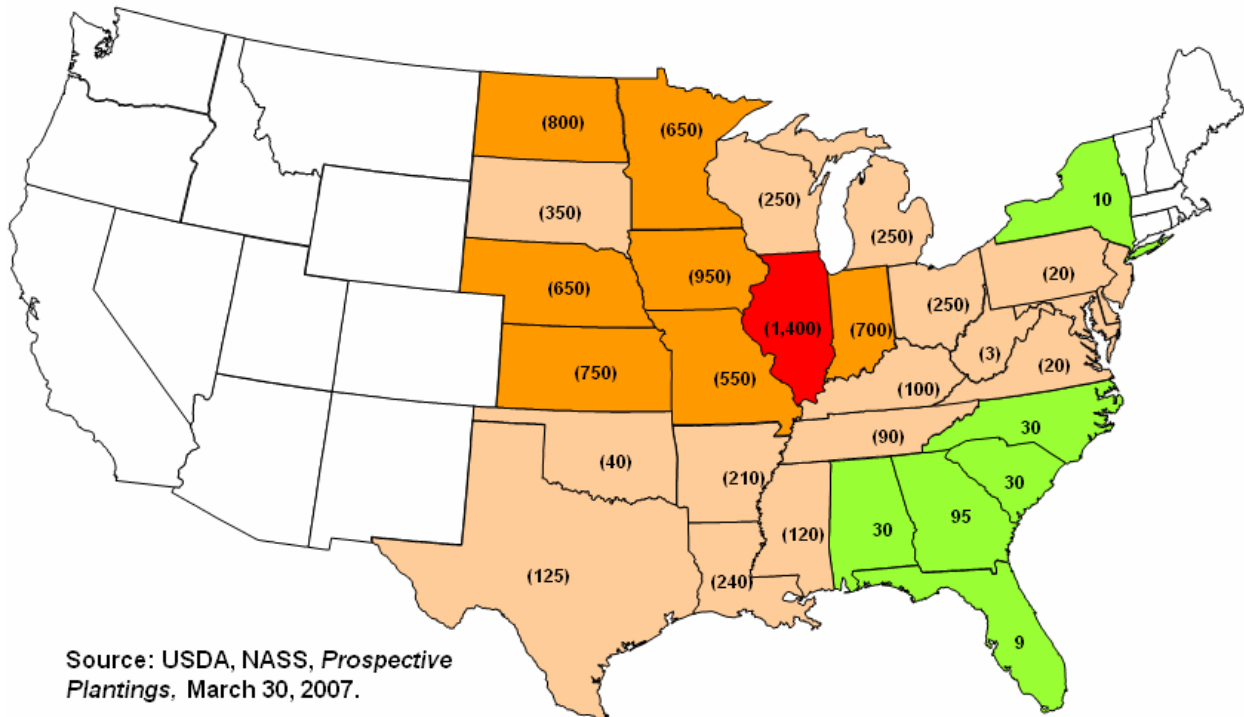
Larger acreages of corn also may result in lower expected yields, as lower productivity farmland is brought into corn production. However, acreage increases in previous years have not lead to statistically detectable decreases in yields. More corn-after-corn also may be expected to decrease expected yields. However, corn-after-corn production likely will occur mostly in Illinois and Iowa, states that have expected yields above the U.S. average. In aggregate, increases in corn-after-corn production will not have large impacts on expected U.S. yields. Overall, decreases in expected U.S. yield will be small.

While a slight decline in U.S. production may be expected, weather likely will have larger impacts on aggregate U.S. yields than regional acreage shifts. Favorable weather could result in record setting yields while adverse weather could result in much lower than expected yields. Moreover, actual acreage shares could vary from those suggested in the March 30th report.

Projected Soybean Acres

Several states in the southeast are projected to increase soybean acres (see Figure 2). These include Georgia (95 thousand acres); Alabama, North Carolina and South Carolina (30 thousand acres each); and

Figure 2. Projected Change in 2007 Soybean Acres (,000).



Source: USDA, NASS, *Prospective Plantings*, March 30, 2007.

Florida (9 thousand acres). By far, the state with the largest loss is Illinois (1.4 million acres). Following Illinois with large acreage losses are Iowa (950 thousand acres), North Dakota (800 thousand), Kansas (750 thousand), and Indiana (700 thousand).

The four states with the most soybean acres are Iowa, Illinois, Minnesota, and Indiana. In 2006, these states had a 44.1 percent share of production (see Table 2). Projected plantings result in these states having the same 44.1 percent share in 2007. While the total share for the four states is the same, shifting is projected to occur between these four states. Illinois and Indiana are projected to decrease share by -.4 percent and -.1 percent, respectively. Iowa and Minnesota are projected to gain share of .3 and .2 percent, respectively.

In terms of acreage shares, the four states projected to gain the most production share are Ohio (.4 percentage points), North Carolina (.3), Iowa (.3), and Minnesota (.3). The four states projected to lose the most share are Kansas (-.6 percentage points), North Dakota (-.5), Illinois (-.4), and Louisiana (-.2).

The five states in the southeast projected to gain soybean acres will gain share. In aggregate, these five states are projected to gain .6 percentage points of share of production between 2006 and 2007. The gain is relatively small because these states gained relatively few acres. Hence the acreage increases do not cause large share increases.

Similar to corn, expected U.S. yields for soybeans were calculated by multiplying the 2007 trend yields for each state by the 1) 2006 share of U.S. soybean production and 2) 2007 projected shares. Expected U.S. yield using the 2007 projected share did not differ from the expected yield using the 2006 actual shares. Overall, regional soybean shifts are not expected to have an impact on expected soybean yield.

Summary

While corn acreage will increase in the Corn Belt, a higher percentage of corn acres are projected to be grown outside the Corn Belt in 2007. This shift in production could cause a small drag on national corn yields; however, weather and other factors likely will be more important in determining 2007 yields.

A small acreage shift in soybean acres is projected to occur in the southeast United States. Other than this switch, geographical patterns in projected 2007 soybean plantings are difficult to identify. Expected U.S. yield should not be impacted by regional soybean shifts in production because these shifts are minimal in nature.

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Table 2. Actual 2006 and Projected 2007 Planted Soybean Acres.

State	Planted Acres		% of U.S. Acres		Change in U.S. %
	2006	2007	2006	2007	
IA	10,150	9,200	13.4	13.7	0.3
IL	10,100	8,700	13.4	13.0	-0.4
MN	7,350	6,700	9.7	10.0	0.2
IN	<u>5,700</u>	<u>5,000</u>	<u>7.5</u>	<u>7.4</u>	<u>-0.1</u>
Four Largest States	35,306	31,607	44.1	44.1	0.0
MO	5,150	4,600	6.8	6.9	0.0
NE	5,050	4,400	6.7	6.6	-0.1
OH	4,650	4,400	6.2	6.6	0.4
SD	3,950	3,600	5.2	5.4	0.1
ND	3,900	3,100	5.2	4.6	-0.5
AR	3,110	2,900	4.1	4.3	0.2
KS	3,150	2,400	4.2	3.6	-0.6
MI	2,000	1,750	2.6	2.6	0.0
MS	1,670	1,550	2.2	2.3	0.1
NC	1,370	1,400	1.8	2.1	0.3
WI	1,650	1,400	2.2	2.1	-0.1
KY	1,380	1,280	1.8	1.9	0.1
TN	1,160	1,070	1.5	1.6	0.1
LA	870	630	1.2	0.9	-0.2
VA	520	500	0.7	0.7	0.1
MD	470	430	0.6	0.6	0.0
SC	400	430	0.5	0.6	0.1
PA	430	410	0.6	0.6	0.0
OK	310	270	0.4	0.4	0.0
GA	155	250	0.2	0.4	0.2
NY	200	210	0.3	0.3	0.0
AL	160	190	0.2	0.3	0.1
DE	180	160	0.2	0.2	0.0
TX	225	100	0.3	0.1	-0.1
NJ	88	80	0.1	0.1	0.0
FL	7	16	0.0	0.0	0.0
WV	17	14	0.0	0.0	0.0
US	75,522	67,140			

Source: USDA, NASS, *Prospective Plantings*, March 30, 2007, Cr Pr 2-4.