



SOY NUGGETS

Prepared by UGA Extension Soybean Team

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U.S. Farmers Intend a Large Shift Back to Soybeans, Georgia Farmers May Plant Largest Acreage in 14 Years

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The March 31 Prospective Plantings Report showed U.S. farmers intend to increase soybean acreage by 11.126 million acres for a total acreage of 74.793 million in 2008. If realized this would be a 17.5% increase with 25 out of 31 states reporting a 10% or better increase. The largest increases are seen in Iowa (1.25 million), Nebraska (1.2 million), North Dakota (900,000), Minnesota (850,000), and Indiana (800,000). Farmers' intentions exceeded expert expectations by 3.27 million and the market responded to the news with a bearish drop in nearby and new crop futures. Nearby futures dropped below \$11 per bushel and new crop dropped below \$12. Soybean futures have since rallied to pre-report levels as speculative buying has re-entered the market after the sell-off lows from the day after the report.

Georgia farmers indicated planting 410,000 acres of soybeans in 2008. This would be 43% increase and the largest acreage planted in Georgia since 1994. It has been widely reported around Georgia that seed supply will be the limiting factor in how many acres will be planted. Historically high prices, lower cost of production relative to other major Georgia crops, and an increase in wheat acres all encourage farmers to plant more soybeans in 2008. NASS shows Georgia wheat acreage up by 120,000 acres to a total of 480,000 acres. It is safe to assume at least 350,000 acres will be harvested. Seventy seven percent of 2007 soybeans grown in Georgia were double-cropped. Thus, if half the wheat acreage is followed by soybeans in 2008, soybeans could easily reach intentions of 410,000.

Another factor that may impact planted acreage is that more soybean insurance policies were sold for 2008, particularly at higher buy-up coverage levels for APH and CRC policies. The 2008 APH price election was set at \$8.70 per bushel and the CRC base price was set at \$11.85 per bushel. As a result more CRC policies were purchased at the 55% and higher coverage level than APH policies for 2008. CAT policies sold (not earning premium) total 2,532 while APH total 2,273, and CRC totals 1901. Farmers with good APH yield history likely will increase soybeans in 2008.

The March projection for U.S. soybeans is to carryover 140 million bushels into the 2008 marketing year. Combined with 3 billion bushel use, the stocks-to-use ratio is approaching a

record low. However, concern over adequate supplies may be relaxed by the higher than expected planted acreage in 2008 if realized. Brazil's soybean crop is projected to be a record 61 million tons while Argentina is expected to be 1.8 million metric tons short of a record at 47 million metric tons. The 2007/08 U.S. season-average price is projected to range between \$10.00 and \$10.80 per bushel. The soybean meal price is projected to average \$320 to \$350 per ton and soybean oil price to average between 53 to 57 cents per pound. The high soybean prices have resulted in six straight months of reduced biodiesel production from soybeans.

	United States ¹				Georgia ¹			
	2006	2007	2008 ²	Change ³	2006	2007	2008 ²	Change ³
Corn	78,327	93,600	86,014	-8.1%	280	510	370	-27.5%
Cotton	15,274	10,830	9,390	-13.3%	1,400	1,030	1,050	1.9%
Grain Sorghum	6,522	7,718	7,415	-3.9%	40	65	55	-15.4%
Peanuts	1,243	1,230	1,430	16.3%	580	530	650	22.6%
Soybeans	75,522	63,631	74,793	17.5%	155	285	410	43.9%
Tobacco ⁴	339	356	350.9	-1.4%	17	18.5	16	-13.5%
Wheat	57,344	60,433	63,803	5.6%	230	360	480	33.3%

1/ All numbers are 1,000 acres.

2/ Prospective Plantings, USDA, March 31, 2008.

3/ 2008 vs. 2007

4/ Tobacco reported as intended harvested acres.

Soybean Planting Time Advice

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When soybean planting time arrives, doing it right could pay big dividends. The 2008 soybean seed supply is critically tight and expensive. Some of the seed supply is of marginal quality with less than 80% germination and more vulnerable than usual to planting time stresses. There won't be much opportunity for replanting, so doing it right will be crucial to this year's success.

Why The Problem With Germination?

Seed germination and vigor are highest at physiological maturity which may or not be good depending upon weather, planting date, variety, etc. Seed germinability declines with aging after this time. The rate of decline is influenced by seed moisture (the higher the faster), seed temperature, handling, seed decay organisms, etc.

Last year was a time when soybean germination and vigor were less than ideal at physiological maturity. The hot dry mid-season weather followed by rains near maturity resulted in many

soybeans having relative high levels of free fatty acids. These are components of fat, but when not attached to the fat molecule can be a significant part of the seed decay process, either by the physical effect they have on germination or their vulnerability to decay by microbial organisms.

This year a lot of soybean seed have this problem—in spite of the best efforts of seedsmen to gather, handle, store and process seed for planting. Usually, it's not difficult to produce planting seed with 80% (+) germination; but because of 2007 weather conditions, a lot of 2008 soybean planting seed will have marginal quality, 70-80% germination. In light of this, handling and planting procedures this spring will be especially important for getting acceptable soybean stands. The need for getting good stands is also paramount, in that there won't likely be soybean seed available for replanting.

Handling and Planting Procedures to Consider

1. **Handling soybean seed** needs to be as gentle as possible. Rough handling can fracture soybean seed internally, especially when seed are at low moisture. Seed need to be gently lifted or lowered when handled. Seed plates on some planters are major culprits for cracking seed, especially if planting at fast speeds. If seed cracking is noticeable, change seed plates or slow down planting speed.
2. **Storage of soybean seed** needs to be under cool, dry conditions. If seed are picked up now and not planted until June, storage conditions could be an issue of concern. Ideally, soybean seed should be stored between 40 and 65° F. Avoid situations where seed might accumulate moisture above 13% or be subjected to changing temperature or hot temperatures, above 80°F, for an extended period of time.
3. **Use seed treatments**, but don't overdo it. Three seed treatments: fungicide, inoculant, and molybdenum are commonly used on soybeans. Each can have a special benefit but the chemical affects of these treatments can be adverse to soybean germination if soil moisture is limited and/or if soil temperature is high, above 95°F. Use seed treatments as needed, but planting when soil moisture and temperature are favorable will help these treatments be beneficial for soybeans without reducing soybean emergence. This same advice would also apply to soil pesticides and fertilizers. Use them as needed, but don't concentrate them in the seed bed.
4. **Planting in moist soil** is essential for getting a good soybean stand. Marginal soil moisture usually results in spotty and poor soybean stands. The soybean seed needs to absorb 50%(+) of its weight in moisture for the germination process to begin. If moisture absorption is less than this amount, seed decay rapidly takes place. If irrigation is used to enhance stand emergence, it should be applied ahead of, not after planting. Doing so will give better soybean stands.
5. **Planting depth** needs to be deep enough to plant in moist soil. When soil moisture is good the ideal depth will be 1-1 ¼ inches deep. Planting deeper than this can result in poor emergence, especially for low vigor seed.
6. **Plant in a clean seed furrow**, one that is free of trash and/or old crop litter in the immediate area of the placed soybean seed. Litter near the placed soybean seed can help increase seed decay or interfere with good seed-soil contact.
7. **Try to avoid soil crusting**. Such is most likely to occur when planting in wet soils and/or with excessive firming of soil over the seed bed. Allow soil to adequately drain after rains

or irrigation before planting. Set the planter press wheel to lightly firm the soil over the planted seed, but make sure that it is not excessive. Make planter adjustments as needed to get desired soil firming. If crusting does occur, use a rotary hoe or irrigation to reduce its stress on germinating soybean seedlings.

8. **Use PPI or PE herbicides** only as needed for control of glyphosate resistant or tolerant weeds. These herbicides tend to have some negative effect on soybean emergence even in ideal conditions. Use of these herbicides at high labeled rates could result in poor stands, especially if soybean seed quality is marginal. Their detrimental effects on soybean emergence can be reduced if they are applied at moderate rates, in split applications, or 2-3 days after planting when soybean germination has begun. When PPI or PE herbicides are needed, it would probably be wise to increase the seeding rate about 10 percent to help compensate for any soybean stand reduction they might cause.

What About Soybean Seeding Rate?

There is a lot of interest in reducing soybean seeding rate, especially in light of current high seed costs. This strategy has merit in that soybean yield is usually not affected much by population density within limits of 50,000 to 200,000 soybean plants/A. Planting at low populations (7-9 plants/ft of row for 36" spacings) has some merit for saving on seed costs but only if high quality seed are used. For marginal quality seed, the emphasis should be on planting more, not less, seed to help insure getting a good soybean stand. Even with good seed and good planting conditions, only 50-60 percent of soybean seed typically emerge to a stand. For early planting, aim for five soybean plants per foot (36" rows). With good soybean seed and good planting efforts, it will usually take 8-10 seed per row foot to achieve this. For marginal quality seed, it will likely take 10-12 seed per foot to get the same results. Soybeans planted late after June 15 tend not to grow and branch as much as early plantings. For these plantings, it would also be prudent to increase soybean seeding rate 10-15 percent.

These are some of the "pot holes in the road" as we approach the 2008 season. Planning efforts to avoid them could be the difference between success and failure for 2008 soybeans.

DON'T PLANT SOYBEANS TOO EARLY

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Several growers have inquired about planting soybeans in early April to take advantage of favorable soil moisture and weather. The idea may seem to have merit but April planting generally results in reduced soybean growth, yield and seed quality. This is especially true for determinate soybean varieties, the type mostly planted in Georgia.

The ideal time for planting a determinate soybean variety is about May 10. This planting date provides the soybean plant a fairly long time for vegetative growth (until late July through

mid-August, depending on maturity group) before nights get long enough to trigger flowering and reproductive development. Planting determinate soybean varieties in April triggers premature flowering and results in short plants with reduced yield potential. Planting as early as May 1 will usually cause some slight reduction in plant growth but usually will have little adverse affect on yield.

If eager to get started planting determinate soybeans, hold off at least until May 1. This wait should net more soybean growth and yield.