



Extension FactSheet

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Soybean Cost Cutters

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When soybean grain prices are predicted to be in the \$5.00 to \$5.50 range, there isn't much profit, even when yields are good. There are three approaches to increased profits: increasing yield while holding the cost of production constant, reducing the cost of production while holding onto yield, and increasing the price received through better marketing. For most producers, the easiest and most effective approach is to reduce the cost of production without reducing yield.

Build your production system on the following foundation:

- If all other inputs are adequate, planting date and row spacing combined account for 50 percent of yield, drill beans as early as soil conditions allow.
- If all other inputs are adequate, disease control accounts for 20 percent of the yield, select disease-resistant varieties and treat the seed with the appropriate seed treatment fungicides.
- If all other inputs are adequate, weed control accounts for 15% of yield, design and conduct a good program for controlling weeds.
- If all other inputs are adequate, soil fertility and seeding rate account for 7 percent and 5 percent respectively, check the soil pH and K levels and calibrate the drill for the desired seeding rate.

Reducing Production Costs

1. Reduce the amount of tillage performed or use none. If tillage costs \$20 per acre, then the yield must increase by four bushels per acre to pay for the tillage.
2. Don't apply fertilizer if the soil test levels are above the response level:
 - Soil pH should be above 6.0.
 - Soil P needs to be only 15 ppm or greater for maximum yield.
 - Soil K should be about 165-, 190-, or 215-ppm for a soil CEC of 10, 20, and 30, respectively, for maximum yield.
 - Don't apply Nitrogen to soybeans.
3. Because soybean seed is sold in 50 pound units, buy varieties with small seeds to make a unit plant more land.
4. Use the public certified varieties because the seed is low cost and those varieties yield well and usually have good resistance to disease.
5. Buy varieties with proven performance that have been around a couple of years rather than the newer, more expensive ones. Make sure they have yielded in the top 25 percent of the yield trials where they have appeared. If they have not been compared to other varieties in a university performance trial, don't take a chance on them.
6. Some Roundup Ready (RR) varieties have a yield drag and inadequate resistance and tolerance to disease. There were also some very high-yielding RR varieties with good disease resistance in the trials. Be very selective if choosing Roundup Ready varieties.
7. Select varieties with as much disease resistance and tolerance as possible as a means of holding onto yield. Such varieties don't cost any more than susceptible ones. Ohio soybean producers lose 6 to 12 bushels per acre each year due to disease, most of which cannot be seen because it is in the root systems and stems.

Note: More than 500 soybean varieties are available each year, but only about half are entered in the Ohio Soybean Performance Trials. Varieties not entered are usually poorer performers than those entered. Selecting a variety that was in that test and had a yield greater than the test average gets you in the top 25 percent of all varieties available. If you select one that yielded above average by more than the LSD value, then you are into the best 10% of varieties and those are all similar in performance and yield potential.
8. Reduce the seeding rate for normal varieties from 200,000 to 170,000 and use seed treatments to produce an adequate stand that is healthy, and thus reduce cost more than yield. In six years of seed treatment trials, Apron seed treatments have increased yield by an average of 2.2 bushels per acre at a cost of less than \$3 per acre. Seed treatment pays.
9. High seeding rates were used to control weeds, but are not needed for yield. Reducing the seeding rate of RR varieties to 100,000 to 125,000 can reduce the seed cost by half, while having very little effect on yield. A few more ounces of Roundup Ultra may

- be needed for weed control, but you'll be many dollars ahead. Be sure to treat the seed with fungicide.
10. For weed control in normal varieties, use reduced rates of post-emergence herbicides for an effective low-cost weed-control program. Timing of herbicide application is critical.
 11. Don't keep your grain to use for seed. Hundreds of studies show that while saved grain is cheaper than seed, yield losses from saved seed are almost always greater than the savings in seed cost, resulting in less profit.
 12. Inoculate your seed with one of the new/improved inoculation materials. Our average yield increase from 35 field trials over six years with several products in each has been 2.0 bushels per acre generating a profit of \$8 per acre.
 13. When prices are low, there are numerous worthless products and fast-talking sales people that make those products sound really great. If they don't show you data from several university evaluations, then don't waste your time with them.

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