



Extension FactSheet

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Double-Cropping Soybeans Following Wheat

Dr. Jim Beuerlein, Professor

Ohio farmers have an opportunity to increase their productivity by double-cropping on one million acres of wheat each year. The 10 to 12 weeks of growing season that remain after wheat harvest are enough to grow a second crop of soybeans. Although yield potential for double-crop soybeans is reduced by late planting, the value of the combined soybean and wheat crop makes this practice economically competitive with full-season corn and soybean crops.

Careful management is required for production of a profitable second crop. The soybean planting date is critical in determining productivity of the system. At the time of wheat harvest, the potential yield of soybeans is decreasing by at least one bushel per acre for each day that planting is delayed. Thus, every effort must be made to get the wheat harvested and the soybeans seeded as early as possible. Selecting an early-maturing wheat variety can allow for harvest five to seven days before the late varieties are ready. Wheat can be harvested when grain moisture is 18 to 20 percent with no loss of quality and will permit soybean planting to be advanced from three to five days. Planting the wheat immediately after the fly-safe date often hastens its development, leading to a slightly earlier harvest. If planting cannot be completed by July 10, double-cropping should not be attempted.

The straw remaining after wheat harvest must be considered. While excessive amounts of straw can interfere with the soybean planting operation, some wheat stubble (12 inches) should be left on the field to provide mulch cover for the soybean crop. Straw passing through the combine should be chopped and spread widely or baled and removed. Using a stripper header is also an ideal way to leave the wheat straw in the field without it interfering with soybean planting.

Soil moisture present at the time of wheat harvest is the critical factor for determining the potential yield of the soybean crop. If soil is quite dry at the time of harvest, double-cropping should not be attempted. Soybean seed planted into dry soil will not germinate until enough rain falls to allow germination. This may occur too many days after harvest for satisfactory crop growth and yield. If the subsoil has been depleted of moisture by the wheat crop, soybean growth will depend totally on rainfall. Usually rainfall amounts during July – Sep-

tember are inadequate to support adequate growth of the second crop. Most failures can be avoided by not planting when the soil is dry at the time of wheat harvest. "If June is dry, do not try." The soybean crop should be planted without tillage to save all available moisture.

Selection of the proper soybean variety is critical. Varieties that are extremely early maturing for an area do not yield as well as later-maturing varieties. In general, a variety with a mid-season maturity rating for the area is usually the best choice. For fields near I-70 that can be planted on July 4, a variety with relative maturity of 3.4 to 3.8 will be suitable most years.

Narrow rows (7 inches) are required for maximum yield of double-crop soybeans. Because of late planting, the soybeans flower about 30 days after emergence, resulting in small plants. Since the plants will be small, the planting rate should be increased to 4 seeds/ft. in 7-inch rows.

With no-tillage planting, weed control with herbicide is essential for satisfactory production of the second crop. Wheat stubble ordinarily contains many weed seedlings that must be controlled. When competition from the wheat is removed, these weed seedlings will develop rapidly and compete severely with soybeans. Herbicides selected and rates of application used for weed control in double-crop soybeans should kill the weeds present at planting time and provide residual control of weeds emerging from seed. The use of Roundup Ready soybean varieties and Roundup Ultra for weed control almost guarantees perfect weed control.

Adequate amounts of phosphorus and potassium may be applied for both crops when planting the wheat.

Double-cropping is not a practice for everyone. Unless producers are willing to follow closely the management procedures outlined here, they should not attempt double-cropping. By adding the value of 20 to 30 bushels per acre of soybeans to the value of the wheat crop, double-cropping soybeans after wheat becomes quite competitive economically with other cropping practices. In fields where soybean diseases are a major problem, double-cropping soybeans will make those problems worse and should not be attempted.

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