

EARLY SOYBEAN PRODUCTION SYSTEM – Woodruff/Prostko

Researchers have examined an Early Soybean Production System (ESPS) that allows for earlier than usual soybean planting and harvesting. ESPS involves planting a maturity group IV soybean variety and planting it between April 20 and May 31. The ESPS system has become popular in the Delta and Mid-south but is still fairly uncommon in Georgia. The ESPS system appears to have the most merit for productive soils in the Middle/Upper Coastal Plain and the Limestone Valley regions of Georgia.

MG IV or early MG V **indeterminate** varieties are used in the ESPS system because they grow better with early planting (April 20 – May 10) than determinate varieties. The critical moisture period for ESPS is July and early August. Therefore, the ESPS system can be used to escape September/October drought and/or to further spread drought risks when grown in addition to regular soybean varieties. Performance of ESPS varieties can be improved by planting in close-row widths (7 to 30 inches) and at high seeding rates (10 to 20% above normal). ESPS varieties will mature by mid-September. Harvest **must** be made by 10 to 14 days after maturity to avoid shatter and seed quality problems.

ESPS varieties are ideal for soybean trap crops. They are, for the most part, susceptible to root knot nematodes. Therefore, they should be planted only on select soils. ESPS varieties have high yield potential but have slightly higher production risks than regular varieties.

There are three major risks which must be managed when growing ESPS soybeans:

1. These varieties attract stink bugs during early pod-fill (July). Therefore, stink bug scouting and control measures are essential.
2. ESPS seed quality declines rapidly in the field after maturity. Harvest within two weeks of maturity to prevent possible severe seed quality problems.
3. Maturity of ESPS soybeans can coincide with late August and early September rains and hurricanes, such as those encountered in 2004. Thus a large portion of one's soybean crop should not be planted in this manner. It is always best to spread risk over planting dates and maturity classes.

ESPS is not well adapted to Georgia for the above three reasons. Getting good seed quality is the biggest concern for ESPS. As such, ESPS soybean seed quality is expected to be fair in North Georgia but only fair to poor in southern Georgia counties. The following soybean varieties have performed well in recent UGA ESPS tests: Pioneer 94M80 (RR), Southern States RT4808 (RR/STS), Southern States RT5160N (RR).