

IRRIGATION

Irrigation is critical in peanut production because it allows us to take advantage of other inputs. Water is needed to move Ca from land plaster into the pegging zone and to keep soil Ca in solution and available to the pods.

Irrigation also improves the effectiveness of herbicides (e.g. Prowl, Sonalan, Dual, Valor, Cadre); soil fungicides; and insecticide (Lorsban). Without timely rain or irrigation these inputs can be wasted. Irrigation lowers soil temperatures, which allows for normal peg development and greatly reduces aflatoxin risk.

Irrigation is also the best insect control available in that it makes the peanut plant much less susceptible to some of the most costly pests: lesser cornstalk borer, burrower bugs, corn earworm, and spider mites.

IRRIGATION SCHEDULING

The peanut growing season can be divided into five intervals based on the potential need for irrigation.

Timing	Rate	Significance
At-planting	0.5" if needed	Stand establishment. Pre-emergence herbicide infiltration / activity.
Emergence-45 DAP (pegging)	0.5" if needed	Enhance post-emergence herbicide activity (e.g. Cadre).
45-60 DAP (peg.-early pod-fill)	0.75 - 1.0" per week (minus rain)	Land plaster infiltration and solution. Maintain pegging. Prevent lesser cornstalk borer damage.
60-110 DAP (pod-fill)	1.0 - 1.5" per week (minus rain)	Fill pods. Peak water use occurs at about 75 DAP. Keep calcium in soil solution. Move fungicides into the soil. Suppress corn earworm, spider mites, and some soil insects (lesser cornstalk borers, burrower bugs).
110-125 DAP	0.75 - 1.0" as needed to prevent wilting.	Avoid late season drought stress and prevent aflatoxin. Provide adequate soil moisture for digging.

An alternative to the above rule-of-thumb method is a simple device (atmometer) to measure and replace evapotranspiration.