



**PROFESSIONAL
STUDY PROGRAMS**

IRRIGATION AND FERTIGATION RECOMMENDATIONS FOR SOYBEANS

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$$\text{Application rate (" /hr.)} = \frac{231 \times \text{flow rate of a dripper (G.P.H.)}}{\text{spacing between lines ("} \times \text{spacing between drippers (")}$$

The irrigation recommendations are based on no rain. Efficiency of rain should be estimated at 80% and be deducted from the recommendations. Normally a rain of 0.15" - 0.2" or less should not be considered. Final decision should be made based on the above in addition to common sense, judgement and local experience. Soil moisture sensors or tensiometers can be very helpful tools.

If it rains such that a week has gone by without irrigation, then the system will be turned on just to fertigate the weekly scheduled amount. Such a technical fertigation should last no more than one (1) hour including filling up, injection and flushing time.

The above listed guidelines are based on general assumption that the levels of Phosphorous and Potassium in the soil are medium to low.

If soil analysis is available, these recommendations should be adjusted accordingly, based on the analysis recommendations.

In the case of poor inoculation and start-up, an application of 15.0 - 25.0 lbs./Ac. - N is recommended. For high yields, it is also recommended to apply 25.0 - 30.0 lbs./Ac. - N from podding to seed fill.

Consult with your local fertilizer supplier or Netafim Agronomist in the adaptability of the various fertilizers to drip systems.

Boron, Manganese and other minor elements can be applied pre-plant, fertigated or foliar. In sandy soil it is recommended to fertigate in split application a total of 0.5 lbs./Ac. - B and 6 - 10 lbs./Ac. - Mn at bloom.

Secondary elements such as Calcium, Magnesium and sulfur will be applied based on soil analysis or liming recommendations (Limestone or Dolomite).

A good liquid fertilizer should be similar or close to the formulation 0 - 5 - 10.

Crop Nutrient Requirements for 60-80 Bushels/Acre

	N	P ₂ O ₅	K ₂ O
Pre-plant - (lbs./Ac.)		50	100
Fertigated - (lbs./Ac.)		30	60
Total - (lbs./Ac.)		80*	160

*Note: For small grain-soybean the P amount should be doubled.

Irrigation and Fertigation Guidelines

Crop Stage	Planting - 6th node	6th node - blossom	blossom - podding
Days	0 - 55	55 - 70	70 - 90
Irrigation (" /day)	0.02 - 0.22	0.22 - 0.25	0.25 - 0.3
Intervals (days)	2 - 3	1	1
Fertigation (lbs./Ac./stage-P)	6	8	8

Crop Stage	podding - seed fill	seed fill - maturation
Days	90 - 120	120 - 140
Irrigation (" /day)	0.3 - 0.25	0.25 - 0.15
Intervals (days)	1	1
Fertigation (lbs./Ac./stage-P)	8	

Note: Do not exceed irrigation time of 2.0 hr./application, otherwise split to two or three applications.



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