



**PROFESSIONAL
STUDY PROGRAMS**

IRRIGATION AND FERTIGATION RECOMMENDATIONS FOR CORN

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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.

The same is applicable to Calcium, Magnesium, Sulfur and minor elements, mainly Zinc. All of these can be applied as pre-plant (liming) or foliar (minor elements). In case of big deficiencies, those elements can be fertigated (mainly Ca, Mg, and S).

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

Most of the Potassium in corn production is being up taken from planting to silk.

Crop Nutrient Requirements for 200-250 Bushels/Acre

	N	P ₂ O ₅	K ₂ O
Pre-plant - (lbs./Ac.)	30-50	50-75	100-120
Fertigated - (lbs./Ac.)	220-200	50-25	125-105
Total - (lbs./Ac.)	250	100	225

Irrigation and Fertigation Guidelines

Crop Stage	Planting - 6 leaf	6 leaf - 12 leaf	12 leaf - tassel	tassel - silk	silk - blister
Days	0 - 25	25 - 45	45 - 60	60 - 75	75 - 85
Irrigation (\"/day)	0.05 - 0.075	0.075 - 0.15	0.15 - 0.2	0.2 - 0.25	0.25 - 0.3
Intervals (days)	2 - 3	1	1	1	1
Fertigation (lbs./Ac./stage-N)	15	40	45	55	25

Crop Stage	Blister - Dough	Dough - Beginning dent	Beginning dent - dent	dent - maturity
Days	85 - 100	100-110	110-125	125 - 135
Irrigation (\"/day)	0.3 - 0.23	0.23 - 0.125	0.125 - 0.075	0.075 - 0.05
Intervals (days)	1	1	1	1
Fertigation (lbs./Ac./stage-N)	15	10	5	5

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



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