

STARTER SOLUTIONS

FOR  
VEGETABLE TRANSPLANTS



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*Cover Photo*

Goldrush sweet potatoes one month after planting. Left, plants that received starter solution at transplanting; right, plants that received water alone.

# STARTER SOLUTIONS for Vegetable Transplants

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NUTRIENTS BECOME AVAILABLE to plants slowly in soils during the early spring and late fall when soils range in temperatures below 55 to 60 degrees F. Freshly transplanted vegetables in cold soil can be stimulated both in leaf and root growth by starter solutions. These starter solutions provide readily available nutrients to the transplants in the root zone. Benefits from using a starter solution may be expected from field-transplanting crops such as sweet potatoes, peppers, eggplant, cabbage, broccoli, cauliflower, tomatoes, watermelons and cantaloupes. Some of these benefits are earlier maturity, higher quality and greater yields.

Table 1. The Effect of a Starter Solution on the Total Yield of Sweet Potatoes (50 lb. Crates per Acre)

<u>Location</u>	<u>Year</u>	<u>Variety</u>	<u>Water alone</u>	<u>Water with starter fertilizer</u>	<u>Increase crate per acre</u>	<u>Percent increase</u>
Hearne	1953	Porto Rico	386	421	35	9
Milano	1953	Porto Rico	114	198	84	73
Prairie View	1955	Goldrush	423	629	206	48
Average			308	416	108	35

Use of starter solutions is perhaps one of the cheapest and easiest methods of obtaining an extra 20 to 30 percent increase in yields of vegetables.

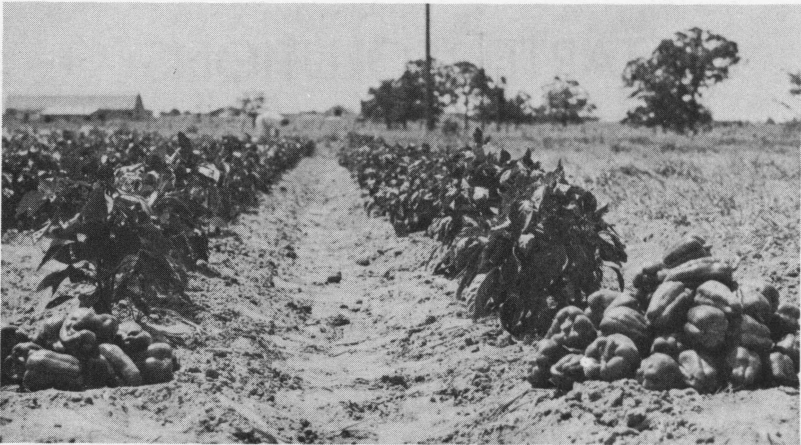
## *Concentrated Fertilizers*

Completely water soluble, high-analysis fertilizers containing nitrogen (N), phosphate ( $P_2O_5$ ) and potash ( $K_2O$ ) are preferred to low-analysis mixtures. Low-analysis materials such as 6-12-6 or 8-8-8 contain insoluble filler which frequently clogs mechanical plant setters.

## *Mixing*

The exact amount of concentrated fertilizer to add to 50 gallons of water usually appears on the container label. These directions should be followed. Approximately  $\frac{1}{2}$  pint of solution should be applied around the roots of each transplant.

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*Effect of starter solution on early yield of bell peppers. The row on the right received  $\frac{1}{2}$  pint of solution (3 pounds in 50 gallons of water) per plant at transplanting. Row on left received  $\frac{1}{2}$  pint of water only per plant.*

Concentrated fertilizers may be purchased to give several ratios of low, medium or high rates of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O. Your county agricultural agent can advise you in selecting the proper ratio.

Several sources of supply for concentrated fertilizers appear below. Other sources may be available. The list does not imply endorsement by The Texas A. & M. College System.

<u>TRADE NAME</u>	<u>ANALYSIS</u>	<u>COMPANY</u>
Take Hold	10-52-17	Victor Chemical Works Chicago 4, Illinois
Bonro	10-50-10	Swift and Company Hammond, Indiana
Instant Vigoro	19-28-14	Swift and Company Hammond, Indiana
Kap Co No. 1	15-30-15	Kelley Agricultural Products McKeesport, Pennsylvania
Kap Co No. 3	20-20-20	Kelley Agricultural Products McKeesport, Pennsylvania
Hy-Gro	13-26-13	McCormick and Company Baltimore, Maryland
VHPF	6-25-15	Miller Chemical Corporation Baltimore, Maryland
Ra-Pid-Gro	23-21-17	Ra-Pid-Gro Corporation Dansville, New York
Dupont S. P. F.	19-22-16	Dupont Chemical Company Wilmington, Delaware

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