

In cases where supplemental sidedressing of mulched crops is needed, applications of liquid fertilizer can be made through the mulch with a liquid fertilizer injection wheel. This implement is mounted on a tool bar and, using 30 to 40 psi pressure, injects fertilizer through a hole pierced in the mulch. Research is under way to determine the benefits of using the wheel for supplying seasonal nitrogen and potassium as well as for fertilizing used mulched beds for double cropping.

For more details on fertilizer placement for specific crops, consult the individual crop production guide. These guides are available from county extension offices.

Drip irrigation. The combination of mulch and drip irrigation often provides an excellent yield-boosting system (Figs. 10 and 11). The drip irrigation method results in substantial water savings and can be used to supply fertilizer. When fertilizing through the drip, apply all phosphorus and micronutrients and 20 to 40 percent of nitrogen and potassium pre-plant. Use the lower rate where seep irrigation will be used to provide a portion of the irrigation water at the beginning of the season. Apply the remaining nitrogen and potassium through the drip system in increments corresponding to the growth of the crop. For more information on drip irrigation, see Extension Circulars 606 and 607.

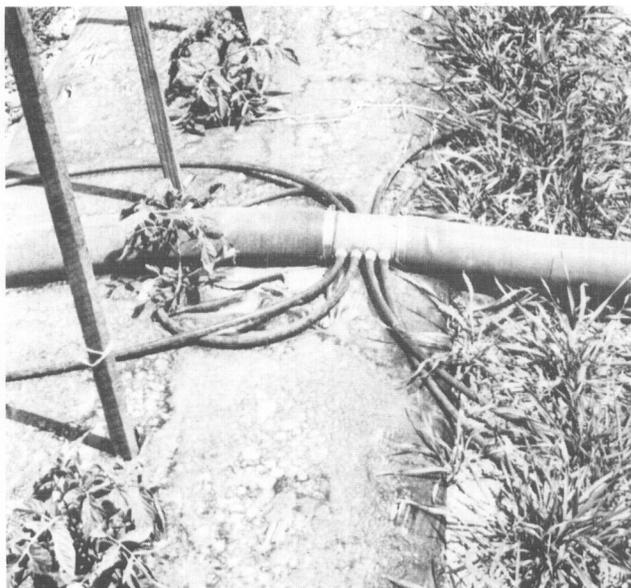


Figure 10. Drip irrigation on tomatoes in Gadsden County.

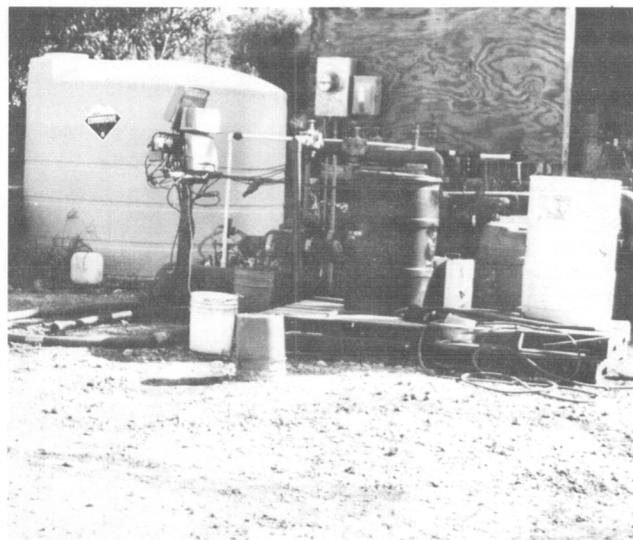


Figure 11. Filter system and computer control for drip irrigation.

Fertigation. Supplying fertilizer through overhead irrigation systems may provide an economical method of fertilizer application and increase the efficiency of the irrigation system. Fertigation is most applicable to sandy soils that require small, but frequent water applications. Fertigation of vegetables is new, and there is very little data on rates and timing of fertilizer applications. In general, it is most useful on crops with close row spacing, such as leafy greens or corn, rather than on crops such as watermelons. Fertilizer application of nitrogen or potassium should coincide with the growth rate of the crop. For more details, see *Vegetarian 85-2, 4, and 5*.

Starter fertilizer. A true starter fertilizer is a soluble fertilizer, generally high in phosphorus, used to help establish young seedlings and transplants. Starter fertilizers generally work best if a small amount of nitrogen and potassium is present along with the phosphorus. Starters represent a very small percentage of the overall fertilizer amount but are very important in establishing crops in cool, damp soils. They can be applied with the planter at 2 inches to the side of the seed and 2 inches deep or can