

Adequate Irrigation Systems Can Cut Losses, Improve Yields In Vegetable Crops

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Many times during the last two months I have thought about irrigating vegetable crops. I suspect that many farmers have had similar thoughts as they watched their sweet corn, beans, cantaloupes and watermelons suffer because of a lack of water.

Recently an article appeared in Veg-1-News on the general subject of irrigating vegetables. This article was written by Ronald Sneed, Engineering Specialist at N.C. State University. The following is most of the article written by Sneed.

Vegetables are 80 to 95 per cent water. Due to their high volume of water and the fact that most are rather shallow rooted, short periods of drought can reduce yields and affect quality. For good yields and high quality, irrigation is essential to the production of most vegetables. If water shortages occur early in the plant's development, maturity may be delayed and yields are often reduced. If moisture stress occurs later in the growing season, yields may not be reduced, but quality is often reduced.

In the past several decades, a number of vegetables irrigation experiments have been conducted in the eastern United States. As expected, results are quite variable depending upon the crop, soil type and when the moisture stress occurs. Some vegetable crops are more responsive to irrigation than others. Crops being produced for the fresh market will generally support a higher level of irrigation than those being produced for the process market.

Irrigation systems that can be used include:

1. Portable aluminum pipe systems with medium pressure, low gallonage sprinklers.
2. Portable aluminum pipe systems with gun sprinklers.
3. Cable-tow self-propelled gun travelers.
4. Hose-drag self-propelled gun travelers.
5. Center-pivot.
6. Linear move.
7. Drip or trickle.
8. Solid-set aluminum pipe with medium pressure, low gallonage sprinklers.
9. Permanent system with medium pressure, low gallonage sprinklers.
10. Permanent system with gun sprinklers.
11. Permanent system with portable gun sprinklers.

The last four systems are relatively expensive and probably would not be practical except on the high cash value vegetable crops. The solid-set and permanent systems with medium pressure, low gallonage sprinklers have the advantage that they can be used

for supplying soil moisture and also for frost and freeze protection and crop cooling. The two self-propelled gun travelers have fairly high pressure requirements. The two hand-move systems require considerable labor input. The drip or trickle system is a low pressure system.

In selecting an irrigation system, the grower must consider several factors:

- a. water supply
- b. field size and shape
- c. elevation
- d. labor available
- e. financial resources
- f. soil type
- g. crop
- h. rainfall distribution

All of these factors are important and will affect to some extent the type of system selected and the profitability of irrigation. A key is an adequate

water supply. It requires approximately 35,000 gallons of water to apply one inch to one acre of land. Many growers have inadequate water supplies and this reduces system capacity and capability.

Another key is selection of a system that requires a minimum amount of labor. A labor intensive system will not be properly used. A third key is to utilize the system on the

maximum number of acres. With vegetable crops, it may be possible to use an irrigation system on several crops that have critical moisture periods at different times. This will reduce the per acre initial investment.

Lastly, a system should be selected that is tailored to the needs of a particular grower. There are numerous good irrigation manufacturers and

sellers of irrigation equipment. Select a system that fits your individual needs. Select a dealer that will properly design the system and will offer service. plan ahead. Do not wait until the system is needed to purchase. The dealer cannot do the best job and you will not get the best price. For example with the center pivot and linear systems, six to nine months of lead time is needed to design and get the

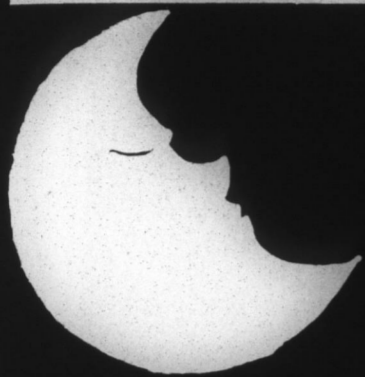
system installed. If underground pipe is to be installed, it needs to be installed before crops are planted. Once the system is purchased, use it. An irrigation system is a production tool that can increase gross income. If the return from irrigation does not exceed the cost of owning and operating a system, it should not be purchased. No one can tell you exactly what increase in

yield to expect. The crop and the rainfall distribution will be keys. Look at your past production over a period of several years. The difference in the production in a good year and that in a moisture deficit year will give an indication of the return you should expect. However, irrigation is only one of many production tools that must be integrated into a successful production scheme.

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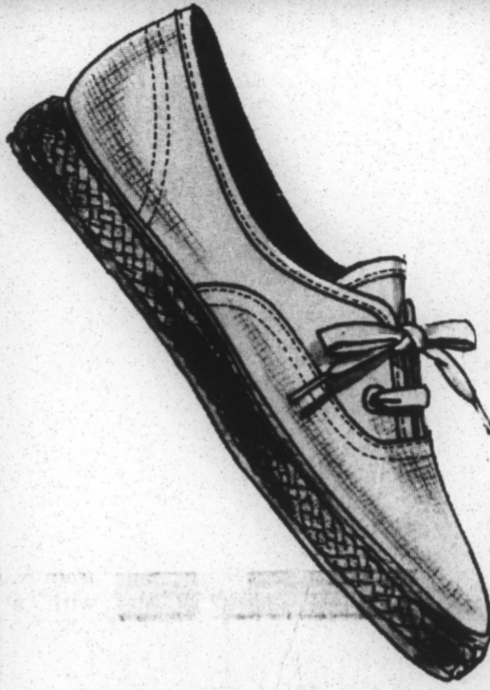
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Recreation Scoreboard

Three Albemarle Teams Advance to State

The 13 year old Albemarle All Stars, consisting of boys from both Chowan and Perquimans Counties won the district championship and will advance to New Bern on July 18 in state competition. The 14-15 year olds lost to Manteo in Currituck. The 16 year olds won easily over Windsor and will advance to Goldsboro. The 17-18 year olds won the district championship and will advance to the state playoffs in Greenville.

The recreation department wishes to congratulate all coaches, players and parents for their support and effort to the Albemarle teams in the district playoffs.

Kids Dog Show

There will be a dog show for ages 4-14, Saturday, August 9 at 10 A.M. There will be five different categories in which to participate. Anyone interested should contact the recreation department by Thursday, August 7.

Festival Slated

The Bertie County Rescue Squad presents the Second Annual Fun Festival in Windsor August 1-3.

Friday's activities feature the first half of a craft show, and Live music outdoors that night.

Activities on Saturday include a second day of crafts, a bike riding event for youngsters, games, square dancing exhibition, and a country-rock dance that night.

Sunday features the BEST in Gospel Music from all over the state Live at the Rescue Building all day.

Doorbuster! 8 oz. Roasted Buttered Pecans	Reg. 1.47..... 1.00
Doorbuster! Ladies' Polyester Shorts!	Reg. 8.00..... 3.88
Sizes 38 - 46. Men's Sport Coat Sale	Reg. 25.00..... 9.88
Accurate Pattern Cutting Boards Reduced	Reg. 5.00..... 1.00
Six McGraw-Edison Thermostat Controllers	Reg. 23.95..... 6.88

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Sizes 4 - 20. Boys' Long Sleeve Shirts!	Reg. 9.00 To 13.00..... 1/2 Off	
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