Subirrigation

"Two for the price of one." That's what farmers in eastern North Carolina are saying about drainage systems known as subirrigation that not only drain fields, but irrigate them too.

Basic tile and open drainage systems keep the ditch's water level just below the drain tiles. These systems improve conditions for seedbed preparation, planting, and harvesting. They also prevent plant stress from too much moisture during the growing season.

But on some soils you can reverse from drainage to irrigation by installing a water control structure such as a flashboard riser at key locations in the outlet ditch. This new concept, subirrigation, applies water beneath the soil surface. It raises the water table and maintains it within reach of the crop's root system.

Due to cost, subirrigation is recommended only for soils requiring drainage. The cost for installing a combination drainage and subirrigation system is only slightly higher than installing the basic drainage system alone. The initial investment could be recovered in 4-6 years with good management.

Irrigation will increase corn yields as much as 30-60 bushels per acre. Subirrigation, however, offers many benefits over conventional center pivot systems including: (1) water needs are reduced since runoff water is stored in the soil profile; (2) labor requirements and annual maintenance costs are low; (3) water requirements are supplied on a uniform daily basis; (4) operating costs and energy requirements are lowered by pumps operating a low head and utilizing gravity flow in open ditches; (5) all fields including the corners can be irrigated; and (6) water losses from evaporation are decreased.

There are 1 to 1.5 million acres of agricultural land in the coastal plains of North Carolina with a potential for subirrigation. However, certain conditions must exist before it is practical. Soil types, availability of a dependable water supply and height of water tables all affect the suitability of a field for subirrigation.

The local Soil and Water Conservation District provides technical assistance to farmers for planning and designing water management systems that will serve both drainage and irrigation needs.



Captain Cassius S. Williams has been selected by the North Carolina Reserve Officers' Association as the Reserve Officers' Association's Outstanding Junior Officer for 1983. Captain Williams is assigned to headquarters of the 4th Brigade (Training) in Raleigh, North Carolina. He has been active in the Army Reserve for 14 years starting at the rank of Private. He received his commission as Second Lieutenant on April 3, 1975.

Captain Williams, a graduate of North Carolina State University, is Assistant District Director of Farmers Home Administration for District 11 which includes Craven, Pamlico, Lenoir, Duplin, Jones, Onslow, Carteret, and Green counties. He is a member of Garber United Methodist Church. He and his wife, Earline, reside in River Bend.

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CP&L Project To Help Needy

Project Share, Carolina Power & Light Co.'s program to help low income, elderly and handicapped persons pay heating bills, has been extended through the 1983-84 heating season, according to CP&L Chairman and President Sherwood H. Smith, Jr.

"CP&L will match contributions from our customers and employees dollar-for-dollar up to \$150,000," Smith said. "Funds collected will help pay energy bills for needy individuals in our service area regardless of whether the energy source is oil, gas, wood or electricity."

Last winter CP&L initiated Project Share with a \$50,000 contribution to the Division of Social Services in North Carolina and the Division of Economic Opportunity in South Carolina. The company also agreed to match on a one-for-one basis up to \$150,000 in contribution from customers and employees. Through early November, customers and employees had contributed \$108,528, bringing the total contributions for Project Share to \$267,056.

Company contributions to Project Share come from shareholder funds and are not paid by customers. Since CP&L covers the administrative costs of collecting funds and their distribution to government agencies, all money collected through the project goes directly to help pay bills, said Smith.

Customers who wish to contribute to Project Share will be given the opportunity to do so by adding to the amount they pay on their electric bill. Information will be provided with upcoming bills.

"We appreciate our customers' response to helping people in need, and we encourage them to join again with us in helping those less fortunate," Smith said.

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