

Are there any cost-share opportunities available?

The USDA Natural Resources Conservation Service (NRCS) under the Environmental Quality Incentives Program (EQIP) provides cost-share to eligible agricultural producers. NRCS, using the 2002 Agricultural Farm Bill Program, determines eligibility. In the Lower Arkansas River Watershed, EQIP pays up to \$400 an acre not to exceed \$100,000 for installation. Additionally, EQIP will pay a pre-determined amount for Technical Service Providers' (TSP) charges for designing the system.

The EQIP program has traditionally put Subsurface Drip Irrigation (SDI) applications in a unique category for funding. As of now, the program has always had enough funding to fully fund every eligible application received. EQIP has and is scheduled to cost-share over \$1 million of SDI applications in the Lower Arkansas River Watershed.

Traditionally, Arkansas Valley producers and NRCS have relied upon industry representatives to do SDI design. No system in the valley has been installed without some input from these representatives. Industry representatives are used on all systems for trouble shooting and management.

The NRCS has made available some engineering assistance for design, but management of the system is done by the manufacturer representatives. This, of course, makes where the supplies are purchased to be of utmost importance. Service after the sale is the most important item.

What can USDA-NRCS do for you?

The NRCS provides cost-share dollars on Subsurface Drip Irrigation and design. The local offices can do a preliminary design for feasibility and necessities. It can either do the design or provide cost-share to have designs done by Technical Service Providers. The field office can also provide information on approximate costs and yield potentials. It can analyze the soil for potential limitations and water supply needs.

What is the best design configuration for a drip system?

Again, the system design depends on your cropping patterns, equipment requirements, and other factors (i.e. soil type). The depth of drip tape placement can vary considerably (from surface to more than 16 inches deep). The best design for the field can be determined by asking experienced users and consultants and by observing actual working systems.

What are the equipment requirements?

Specialized equipment is likely needed for both the installation and operation of a typical drip irrigation system. The equipment will include drip tape injectors, GPS-guided tape placement systems, and specialized tillage implements. A mobile drip system, designed to last only one or two years in one location, requires very little additional equipment. For this type of system, existing on-farm equipment may be modified.

Frequently Asked Questions on Drip Irrigation



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The Lower Arkansas Valley Water Conservancy District (LAVWCD) has a goal of marketing conservation solutions as being essential to maintaining the agricultural productivity, economic vitality, and environmental health of Colorado's Lower Arkansas River Valley. We believe that drip irrigation will play a critical role in the development of economic strategies. "*Frequently Asked Questions on Drip Irrigation*" will be distributed in Otero, Bent, Prowers, Pueblo, and Crowley counties.



How much does drip actually cost?

The cost of a drip system can be quite variable and depends on the system design, the amount of acreage irrigated, and other factors. In most cases, several components (pumps and filters) can have a long life-span which also factor into the total expense. In general, a simply designed system with low filtration and pumping requirements may cost as little as \$700 per acre. A more elaborately designed system (with computer controls for example) can cost more than \$1,500 per acre.

What about maintenance?

The efficiency and longevity of a drip system is extremely dependant on system maintenance. Water quality is a major factor that enters into the maintenance issue. Before any designs are considered, a water quality assessment should be made. Specialized chemical injection units may be needed to ensure that drip tape emitters remain free of clogging and operate at designed efficiency. Maintenance should be factored in as an additional management and cost responsibility.

Want more information?

For further information on drip irrigation contact, the local USDA-NRCS field office, conservation district office or Colorado State University Cooperative Extension office.



USDA-NRCS photo by Mary Miller

What is the rate of return on my investment?

Rate of return depends on the type of crops grown and other production inputs. As expected, the rate of return (and risk) is greater for higher value crops. Due to increased yields and quality, some vegetable crops can recover the cost of a drip system in as little as two years. Field crops may take much longer and may only be cost-effective if careful attention is paid to reducing other inputs like fertilizer and tillage.

What type of crops can be grown?

Any type of crop can be grown with drip irrigation; however, drip lines may interfere with conventional production practices including the harvest of some crops. It is difficult to design a single drip system that will be amenable to all types of cropping practices. Certain design configurations may be good for one crop but may limit your crop rotation possibilities.