

FERTIGATION

The application of fertilizer along with irrigation water during an irrigation event can be economic methodology to minimize application costs and tractor passes across the field.

Fertigation has been used with most types of irrigation systems. The distribution uniformity of the irrigation system is an important factor in the cost effectiveness of utilizing this method, since the amount of fertilizer applied is directly related to the amount of water infiltrated at any point in the field.

With a furrow irrigation system the head of the furrow will receive more fertilizer than the tail of the field. The destination of the tail water taken from the field will also be a factor. Do you want the fertilizer on a different field or should you return the tail water to the same field. The ability to control the depth of water applied is less with this type of system.

Sprinkler irrigation systems generally give better control of the amount of water applied, but the water is sprayed through the air and volatility may be a problem. Whether you want the material applied to go on to the foliage is another consideration.

Drip or micro irrigation systems provide the greatest uniformity and control of the depth of water applied, and so, are the best candidate for using fertigation. Care must be especially taken to consider water quality and other chemical reactions, since there is generally a large investment in the irrigation system that may be jeopardized if clogging occurs. Consideration should also be given to running

the system after the application is made to clear the material out of the system.

A good source of information on [fertigation basics](http://www.itrc.org/papers/pnva/fertbasics.html) (http://www.itrc.org/papers/pnva/fertbasics.html)(PDF format, 36K) is a paper by Dr. Charles Burt at Cal Poly's ITRC. Also, there is a good reference to [chemigation and fertigation laws](http://www.itrc.org/chemigation.htm) (http://www.itrc.org/chemigation.htm), hints, and hardware see the new page on ITRC's website.