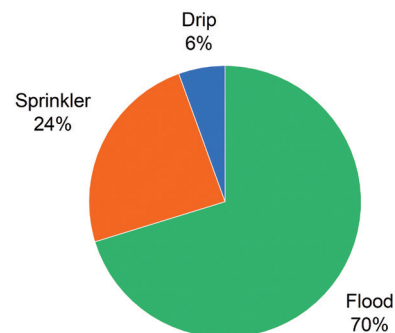


The most common irrigation methods are flood, sprinkler, and drip irrigation. Each method has pros and cons, and the best choice depends on variables such as crop type, soil type, and cost.

Flood irrigation:

Water flows across a field, usually through furrows, and seeps into the soil.

- The simplest, least costly method;
- Considered the least efficient method;
- **BUT** best for some specific uses;
- **AND** efficiency can increase to 80% or more with land leveling, automation, and reuse of runoff.

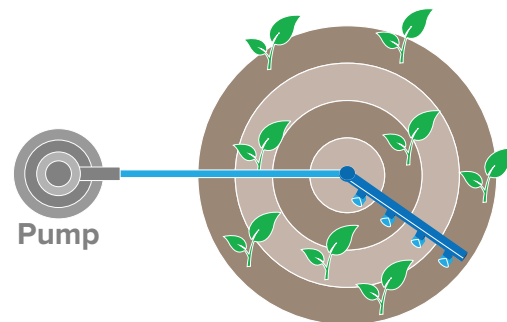


Percentage irrigation method in Arizona

Sprinkler irrigation:

Controlled spray of pressurized water is aimed at crops, often simulating rainfall.

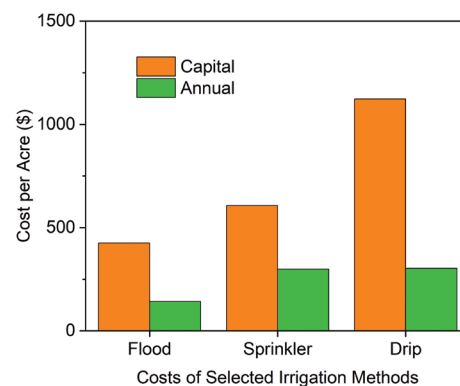
- Sprinkler technology is varied and includes center pivot (shown at right), linear move, traveling gun, etc;
- Relatively efficient, with little runoff or deep percolation;
- **BUT** airborne droplets may be blown away by wind and evaporate quickly;
- **HOWEVER**, some newer systems reduce losses by carrying sprinkler heads close to the soil surface.



Drip irrigation:

Distribution lines apply small volumes of water with extreme precision.

- Considered the most efficient irrigation method. Evidence suggests it can produce higher yields with less water than other methods;
- Each installation can be designed and customized;
- **BUT** Changing a field or crop is more burdensome;
- **AND** soil salinity may be a problem. Salt builds up in soil if irrigation water is high in minerals, and drip irrigation alone does not flush salts to below the root zone.



One acre-foot of Colorado River water can leave behind around one ton of salt!