

Employee Training: Part 10

Agricultural Water Quality: Irrigation and Runoff Management



Good irrigation management is one of the keys to minimizing runoff problems from your farm. While most growers in Southern California are very aware that it is necessary to conserve water because of the high cost, there are still improvements that can be made to most systems. Management of runoff water is also important, as it carries with it pollutants that will affect the waterways.

- **Irrigation Management BMP's:**
- Check the water needs for the types of plants you are growing. You may be overwatering some plant types.
- Review your irrigation system. Does it deliver a uniform amount of water? Or do you have to water some plants excessively to make sure that all plants are getting the minimum amount of water.
- Work with an irrigation professional and conduct an "irrigation uniformity evaluation". Mission RCD in Fallbrook will assist you free of charge. This will allow you to determine the percent efficiency of your irrigation system. You should

be trying to attain an efficiency rate of at least 80%, meaning that 80% of the sprinklers deliver the same amount of water.

- Check for sprinklers that are "homeless"-they are not in a pot, or their target plant is dead. They will simply deliver water that becomes runoff.
- If you are growing on hilly terrain, use a system of pressure compensation to allow your system to deliver an approximately equal amount of water to areas at the top and the bottom of the hills.
- If possible, install a tailwater recovery system to capture any irrigation runoff, and reuse it in your growing operation. The Natural Resources Conservation Service can assist you in designing a system.
- **Runoff Management BMP's:**
- Differentiate between irrigation runoff, and stormwater runoff. Irrigation runoff may not leave your property. Stormwater runoff will leave your property, in a clean a state as possible.
- Stockpiles of materials should be placed away from waterways and areas where runoff will pass through in a storm event.
- Routinely dry clean work areas where stormwater will pass through, to avoid materials being carried into waterways.
- Make sure to avoid erosion problems in a storm event, by planting hillsides to stabilize them or by using some other erosion control method.

Take a look around: Walk through your greenhouses, groves or fields while the irrigation system is on to look for any sprinklers that do not have a target plant. Shut them off to minimize runoff. Check your irrigation system for uniformity