



On-farm Recharge Pilot Projects Case Study

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Grower: Karun Samran

Crop: Almonds

Location: Chowchilla, Madera County

Site Conditions



- Acreage = 5 fields (total 165 acres)
- Crop type = Almonds
- Fields 1 and 2 = 12 years old
- Fields 3, 4, and 5 = 6 years old
- Land IQ rating = Moderately good
- Soil Agricultural Groundwater Banking Index rating = Good to moderately good

Water Supply

- Chowchilla Water District (CWD) provided water at \$10 per acre foot.
- CWD notified grower when water was available for recharge.

Soil Health

- Spread compost on berms post-harvest, 3 tons per acre.
- Applied shredded pruning brush in between plant lines.
- Cover cropping mix of clover and broadleaf mustards grown winter through spring.

On-Farm Recharge Logistics

Labor needed:

• One person to monitor recharge events.

Field infrastructure:

- The original gravity flood irrigation infrastructure was still intact, so no prep work was required.
- CWD metered turnouts.

Field preparation and management:

- Flood 10 rows at a time using one underground water valve.
- Upon filling the rows with 3-4 inches of water, shut off the valve and rotate to the next 10 plant rows.
- Repeated this process until the entire field has been flooded.

Recharge Events

Total applied water:

Water applied at various times from 1/13/2023 through 2/6/2013.

• 175 acre-feet over 165 acres, about1.1 feet per acre

Total water recharged:

• 172.6 acre-feet over 165 acres, about 1 foot per acre

For more information, contact: Rogell Rogers, Agronomist, Sustainable Conservation, at rrogers@suscon.org or 209-576-7729 x346.