Use the management levels and guidance below to adopt good irrigation management practices for almonds. Each level of the Almond Board's Irrigation Improvement Continuum provides the tools necessary to obtain measurements needed to best schedule and manage almond irrigation.



## LEVEL 1.0 FUNDAMENTAL

Practices within reach of all California almond growers

# LEVEL 2.0

More sophisticated practices to attain more crop per drop



Advanced practices to maximize crop per drop

rrigation System

**Evaluate Irrigation System Performance** 



Record pressure variation and calculate average application rate

EVERY THREE YEARS

#### Correct and diagnose system performance problems

Measure **distribution** uniformity and average application rate by measuring water volume

3.0

Measure **distribution** uniformity and average application rate by measuring water volume

**EVERY TWO YEARS** 

# **Determine Orchard Water Requirement**



Use "normal year" regional ETc to estimate irrigation demand

MONTHLY

Adjust for **current** weather and cover crop use

BI-WEEKLY

Use real-time ETc data to correct the schedule

## **Determine Applied Water and Irrigation Efficiency**



Calculate by **mutliplying** application rate by duration of irrigation

2.0

2.0

2.0

Measure with a flow meter

Compare against crop water use (ETc) to **determine** irrigation efficiency

# **Monitor Soil Moisture Status**



Auger 3'-5' deep to evaluate soil moisture based on feel and appearance

2.0

Ensure calculated water applications are not over/under irrigating trees

Ensure calculated water applications are not over/under irrigating trees

Use manually operated soil moisture sensors to 3'-5' depth

3.0

Use automated soil moisture sensors that store data over time

#### **Monitor Plant Water Status**



Use visual plant clues 1.0

2.0

Use a pressure chamber to

measure midday stem water potential 3.0

Compare readings to baseline and use to decide when to start irrigating

## **Integrating Irrigation Management Practices**



### Adjust schedule by:

· Checking soil moisture with an auger Visually monitoring plant water status

## Adjust schedule by:

Current weather data 2.0

· Manually operated soil moisture sensors Pressure chambers for plant water status

## Adjust schedule by:

- · Using real-time ETc data
- · Automated soil moisture sensors
- Pressure chamber data in comparison to baseline values to start irrigating

Use irrigation system performance data with regional estimates of "normal year" ETc to determine orchard-specific water requirements and to schedule irrigations

