

ELABORATION OF IRRIGATION BEST MANAGEMENT PRACTICES

**Scope: the collection of knowledge
on present situation for irrigation and fertilization
and the development of IBMPs**



Achievements

Collection and processing of actual situation of irrigation and fertilization practices

Conclusions on specific drawbacks and strong points and ways to help adoption of BMPs to improve irrigation and fertilization efficiencies

Development of general Irrigation Best Management Practices

Development of specific Irrigation and Fertilization Best Management Practices



From IAV, Morocco

- ✓ Usually large size and certified farms. Farm advisors help in various degrees. Collective schemes, export bound. Easy to approach and accept changes.
- ✓ Water scarcity makes innovations acceptable.
- ✓ Low level educated farmers. Need for training and better handling of advisors and stakeholders.
- ✓ Water application rate by experience. Need for BMPs for local use.
- ✓ Fertilization is done inappropriately and could seriously be improved. Need for BMPs.
- ✓ New laws, active authority participation, use of IRRIQUAL outcomes are improving water use efficiency and incorporate innovations.



From LARI, Lebanon

- ✓ **Low level educated farmers. Need training.**
- ✓ **Water application rate only by experience. Water application methods are improving. Need for BMPs and serious external support from authorities and scientists.**
- ✓ **Fertilization is done inappropriately: need for BMPs and infrastructure like analysis laboratories, advisor training.**
- ✓ **Water scarcity and energy cost make innovations acceptable. But political uncertainty makes everything harder.**



From UTH, Greece

- ✓ All peach farms in IP and many olive farms in Organic. But few things on irrigation management.
- ✓ Water availability is good, innovations could be acceptable with different strategies per area.
- ✓ Water application rate by experience and overused. Water application methods variable. Water needs monitoring non-existent. Need for BMPs, infrastructure (like meteo stations), training of advisors and stakeholders, authority interventions.
- ✓ Fertilization could seriously be improved. Monitoring is done scarcely. BMPs could help, infrastructure is present, training is required.



Long Irrigation BMPs 1

These contain in 55 pages detailed:

Summary

Introduction

Basic Principles of Irrigation

Planning New Irrigation Systems

Pre-Season Checks

Planning the Season's Irrigation

Operating the Irrigation System

Reviewing the Seasons' Irrigation

Tables with various useful data and information sheets



Short Irrigation BMPs

General BMPs in 5 pages short paragraphs on:

Rate irrigation highly within the management system

Get to know the soils on the property

Design, construct and maintain irrigation systems correctly

Monitor all aspects of each irrigation event

Use objective monitoring tools to schedule irrigation

Use more than one tool for scheduling irrigation

Retain control of irrigation scheduling

Remain open to new information



Specific Irrigation BMPs

For olive, peach, citrus irrigation BMPs with (as an example in olive):

Important points from the physiology of olive tree

The soil of the olive orchard

Water application method

Quantity of irrigation water

Irrigation with high conductivity (saline) water

Irrigation and olive tree nutrition

Irrigation and soil - weed management

Irrigation and pests and diseases

Conclusions



Specific Fertilization BMPs

For olive, peach, citrus fertilization BMPs with
(as an example in olive):

A. Introduction

**B. Planning of fertilization management before
planting the olive orchard**

**C. Planning of fertilization management during the
olive orchard life span**

D. Fertilizing during the first years of the olive orchard

E. Fertilizing mature olive orchards

E1. Quantity and fertilizer materials to be used

E2. Time and method to apply the fertilizing

materials

E3. Evaluation of fertilization efficiency

