

Region 3 (January 2007) Management Practice Checklist – Overview

- 1) Adoption of most Pesticide MPs is fairly high.**
- 2) Most are source control MPs and have fewer institutional barriers.**

The following management practices are adopted on > 88% of all acres:

- 1) The use of IPM programs (P1),
- 2) Pesticides are applied based on scouting data, thresholds, and/or risk assessment models (P2),
- 3) Pesticide potential for runoff or leaching is considered when pesticide selection is made (P4),
- 4) Pesticide toxicity to non-target organisms is considered (P5),
- 5) Application equipment is regularly inspected, maintained and calibrated to ensure appropriate application rates and distribution (P6),
- 6) Yearly pesticide training is provided for all pesticide handlers who apply, load, mix, transport, clean, and repair pesticide application equipment (P7), and
- 7) Pesticide mixing and loading areas are located to reduce the likelihood of a spill or overflow which could contaminate a water source (P9). Note: Greenhouse and Nursery growers concentrate resources on worker training and equipment calibration.

The following MPs have variable rates of adoption across crop groups. Orchard growers are most likely to think that these MPs are not applicable to their operations.

- 1) Do pesticide storage facilities have concrete pads and curbs (P8)?
- 2) Are pesticide mixing and loading areas located in such a manner to reduce the likelihood of a spill or overflow contaminating a water source? (P9)
- 2) Production wells are on elevated concrete bases upslope of pesticide storage and handling facilities. (P10) and
- 3) wellhead protection consists of an elevated concrete seal, sump or buffer area of 100' around the wellhead. (P11)

The MP with less than 55% of adoption is (P3) the use of introduced or managed biological control agents.

- 3) There is a lower level of adoption of Irrigation MPs**
- 4) Capital investment limitations - a limiting factor for widespread adoption of these MPs?**

83% of growers (59.4% of the acres) answered that furrow irrigation distribution uniformity does not apply to their ranch. **Note: This corresponds to estimates that over 80% of crops are irrigated with micro-sprinkler or drip irrigation on the Central Coast.**

The least adopted MPs are: 1) Are measured or published evapo-transpiration data (CIMIS) used to determine crop water use? (I5), 2) Is the soil water-holding capacity known? (I6), 3) Are records kept for each crop irrigated? (I7) and 4) Has an irrigation mobile lab system evaluation been completed and the system been adjusted accordingly (I9)?

Vineyard growers are the most likely to use CIMIS data (I5). Vineyard and row crop growers are the most likely to know the moisture holding capacity (I6). Vineyard growers are most likely to keep irrigation records (I7).

In regards to use of the mobile irrigation lab; 16% of all crops, 23.2% row crop 14.5% orchard, 13.2% vineyard 9.3% nursery, 7.5% greenhouse and 18.6% of other, have utilized this service. **Note: The use of mobile lab services and improved irrigation efficiencies should probably be a future educational focus area.**

- 5) Grower adoption of Erosion and Sediment MPs varies widely among crops**
- 6) Most of these MPs are pollution prevention MPS and Institutional barriers are greatest with this set of MPs.**

The use of hedgerows, trees, and shrubs is adopted on about 36% of the all acres while 25% say that it is not applicable (E2). Over 81% of growers (91% of acres) have graded roads to minimize erosion (E3). About 50% of all growers said that water and sediment control basins (E7 and E8) are not applicable while vegetable growers were more likely to have basins than other growers. Only about 42% of acres utilize vegetative buffers between cropped areas, along the lower edge of the farm and along roadways (E9). Over 53% of all growers (45% of all acres) said that riparian buffers are not applicable on their properties (E10). A high percentage of acres are reported to have appropriately sized and maintained culverts (E11). And over 60% of all growers plan to evaluate their management practices for effectiveness through photo-monitoring or water quality testing (E12).

- 7) Adoption of Fertility Management Practices is high.**
- 8) Most of these MPs are source controls and have fewer institutional barriers.**

Over 75% of total acres implement the following:

- 1) Crop nutrient requirements are known and nutrient budgets established and recorded (N1),
- 2) Irrigation water is tested for nitrogen content and incorporated in the fertilizer program (N2),
- 3) soil is tested for residual nitrogen and that information is incorporated into the fertilizer program (N4),
- 4) backflow devices are placed on wells to prevent contamination during fertigation (N5),
- 5) fertilizer equipment is maintained and calibrated (N6), and 6) Mixing and loading is done in areas with low runoff hazard and over 100' from wells.

Management practices with lower implementation levels of adoption reflect differences in cropping systems or application methods. For example, 21% of greenhouse growers do not use tissue sampling when making fertilizer decisions while 82% of all orchard acres use tissue testing (N3).

Nutrient management training of employees (N7) should possibly be a future focus area for educational purposes.