

Right-of-Way Pest Management

Test Plan Development

I. Pest Identification

- a. Bi-annuals
- b. Annuals
- c. Perennials
- d. Desirable vs. Pest (selective control)
- e. Monocot
- f. Dicot
- g. Insect – growth stage, appropriate time for control (thresholds)
- h. Rodent
- i. Scouting/ Monitoring/ Trapping for Pests
- j. Growth Regulators

Pests

- k. Ants
 1. Southern fire ant
 2. Red Imported fire ant (Qualified Applicator)
 3. Harvester ant
- l. Cockroaches
- m. Beetles
 1. Flat-head borer
 2. Palo Verde
 3. Bark Beetles
 4. Bill Bugs
 5. Long-Horned Beetles
 6. Agave Weevils
 7. Yuccas
- n. Pests of Public Health concern
 1. Ticks
- o. Scorpions
 1. Bark scorpion
- p. Wasps/Bees
- q. Noctuid moths/insects that come to lights/occasional invaders
 1. Aphids
 2. Whiteflies
 3. Psyllids
 4. Stink bugs
 5. Mealy bugs
 6. False chinch bugs
 7. Leaf hoppers
- r. Vertebrates
 1. Gophers

Weeds

- a. Clovers
 - 1. Black medic
 - 2. Bur clover
 - 3. Annual sweet clover
- b. Mustards
 - 1. London rocket
 - 2. Mustards (Sahara, Black, Wild Radish)
 - 3. Shepherds purse
 - 4. Swine cress
- c. Composites
 - 1. Groundsel
 - 2. Sow thistle
 - 3. Prickly lettuce
- d. Other
 - 1. Cheeseweed
 - 2. Red Stem Filaree
 - 3. Chickweed
 - 4. Knotweed
- e. Summer annual broadleaves
 - 1. Spurge
 - 2. Horseweed
 - 3. Pigweed
 - 4. Common purslane
 - 5. Russian thistle
 - 6. Puncturevine
 - 7. Toadflax
 - 8. Thistles
 - 9. Globe Chamomile
 - 10. Hairy Fleabane
 - 11. Camphorweed
- f. Winter annual grass weeds
 - 1. Hare Barley
 - 2. Red brome
- g. Summer annual grass weeds
 - 1. Goosegrass
 - 2. Southwestern cupgrass
 - 3. Crabgrasses
 - 4. Sandbur
 - 5. Bermudagrass
- h. Perennial weeds
 - 1. Purple Nutsedge
 - 2. Yellow Nutsedge
 - 3. Kyllinga
 - 4. Silverleaf nightshade
 - 5. Johnsongrass

6. Buffelgrass
7. Fountaingrass
8. Camelthorn
9. Hogpotato

II. Read and Comprehend Label and Labeling

- a. Safety Issues
 1. Spray Drift
 2. Run Off
 3. Surface Waters (lakes, rivers, washes)
 4. Groundwater Protection List – A.I.
- b. Worker Safety – PPE
- c. Calculate chemicals
 1. Application Rates
 - i. Site
 - ii. Pests
- d. Types of Applications
 1. Pre-emergent
 2. Post-emergent
 - i. Spray to Wet
 - ii. Broadcast
 - iii. Spot spray
 - iv. Spray to run-off
 3. Injection
 - i. Stump treatment
 4. Drench
 5. Baits
 6. Traps
 7. Use of Adjuvants
- e. Tank Mixes
- f. Growth Regulators

III. Planning and Implementing a Vegetation /Pest Management Plan

- a. Appropriate Product formulations
- b. Secondary poisoning
- c. Application Timing
 1. Weather
 2. Life Stage
- d. Pesticide Resistance Issues
- e. Monitoring after Application
- f. Mowing
- g. IPM
- h. Bio/cultural controls
 1. Beneficial Insects

2. Bacillus Thuringiensis

IV. Laws and Rules

- a. Ground water protection reporting
 1. A.A.C. R3-8-505
 - i. Reporting Requirements
 - ii. Where to find the list (QA)
 2. QA Responsibilities

V. Equipment Types, Uses, Maintenance and Calibration

- a. Nozzles
- b. Pumps
- c. Hoses
- d. Hand Sprayers
- e. Backpack Sprayers
- f. Broadcast Sprayers
- g. Granular Spreaders

Resources – *Rights-of-Way Management (Washington State University Extension)*; *Weeds of California and other Western States Vol. 1 & 2 (University of California)*; *Truman's Scientific Guide to Pest Management Operations Seventh Edition*; [Handbook on Pests of Community Environments in the Desert Southwest United States](#); [UC IPM](#); [US Forest Service Region 3 Invasive Weeds](#); [Arizona Revised Statute Title 3 Chapter 20 – Pest Management Division](#); [Arizona Administrative Code Title 3 Chapter 8 – Pest Management Division](#); and [National Pesticide Applicator Certification Core Manual](#)