

# Weed Management Plan

## Part One. Problems

### I. Weeds

#### A. Identification

1. List all weeds present in the area and the surrounding borders, include the scientific name

#### B. Weed Abundance and Distribution

1. Indicate in words the relative abundance of each weed species (Heavy, Moderate, Light)
2. Indicate in words their relative distribution (uniform or concentrated in areas)
3. Create a map of the survey area. It should be large enough to be useful.
4. Locate on the map the weed species which have concentrations. Do NOT map individual plants!

#### C. Invading Weeds

1. Survey the borders of the area again. Note which weeds have the potential to become serious problems. Esp. Perennials. This will be particularly useful in developing a preventative program.

### II. Soil

This will be important for herbicide application, especially for those which are soil applied

#### A. Soil Conditions. (plant residues, surface moisture, smoothness)

#### B. Texture. Provide the USDA Soil Texture Class. This information may limit the control measures available

#### C. Organic Matter. Give a rough idea of the amount of Organic Matter. (Very High, High, Moderate, Low); Peat soils can be very high. This information may alter the dosage rate required or limit the control measures available.

#### D. pH. This information will aid in the application process. Adjuvants may be needed to counteract the pH.

### III. Environmental Factors

#### A. Soil Erosion Potential. Is the soil bare? Will it be bare? Is there a sod crop or row crop?

#### B. Non-target Species Are there other crops (esp valuable ones) nearby that might be injured?

#### C. Non-target Sites Are there bodies of water, housing, recreation areas nearby?

### IV. Crop Management System

#### A. What crop management is used and how often? (Mowing, tillage, grazing, rotation)

1. If rotation is used. What has been the recent sequence?

### V. Past Weed Control measures

#### A. What has been used in the past? Indicate each and its relative success.

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## Part Two: Solutions

- I. Prioritize the listed weeds. (Most-to-least bad) List top 4.
  - A. Give a justification for the ranking. The criteria can include abundance, economic importance, difficulty of control, stage of life cycle, etc
- II. Survey available management practices for each weed species

In this section, first look at **all possible** practices, then eliminate non-feasible ones. Some practices might be used for one species but not another!

  - A. Resources: Your experience, technical bulletins, others experience, notes, sales literature, extension agents, etc.
  - B. What preventative steps can be taken?
  - C. Feasibility of control practices
    1. Effectiveness for each species
    2. Consistency. Can good results be obtained every time it is used, or they inherently variable?
    3. Fit. Can it be integrated with other *production* practices.
    4. Flexibility of timing. Can it be accomplished when convenient, or does it require special consideration. (Spraying at a specific stage, for example)
    5. Capability. Can it be done by the **available** workforce and equipment?
- III. Program selection

In this section, select the practices to be used for each species.  
Use the following as guides for deciding on a management program

  - A. Costs and benefits. Is the practice worth the cost of implementing it? Long-term and short term gains should be weighed. For this exercise, simply list general inputs (fuel, time, equipment) unless special purchases must be made e.g. herbicides. In that case obtain the cost per unit.
  - B. Integration into the system.
    1. Timing. When should they be done with respect to other operations (mowing, plowing, planting, etc)
    2. Can the practices for each species be combined?
  - C. Special consideration of Preventative measures. Are there weeds on the complete list that should receive special preventative attention, even if not at the top of priority? Why?
  - D. Special Consideration of early season Control. Early season control has more chance of success and economic benefit. Also, if a practice fails, you have another chance. Are there weeds on the complete list that should receive special Early season control, even if not at the top of priority? Why?
  - E. Special Consideration for Eradication. Are there weeds on the complete list that should receive special attention, even if not at the top of priority?
- IV. Program execution.

This section will not be part of this exercise

  - A. A calendar of events should be devised to insure that practices are implemented at the correct time.
  - B. Equipment needs to be maintained and adjusted
  - C. Work crew should be made aware of the schedule
- V. Appropriate follow-up.

This section will not be part of this exercise

  - A. Success is the goal! As needed....
    1. Monitor implementation
    2. Monitor results on a regular basis for up to 2 years
  - B. Implement remedial measures for escaped weeds!
  - C. Implement remedial measures for failed practices
  - D. Update maps
  - E. Keep a journal of successes and failures