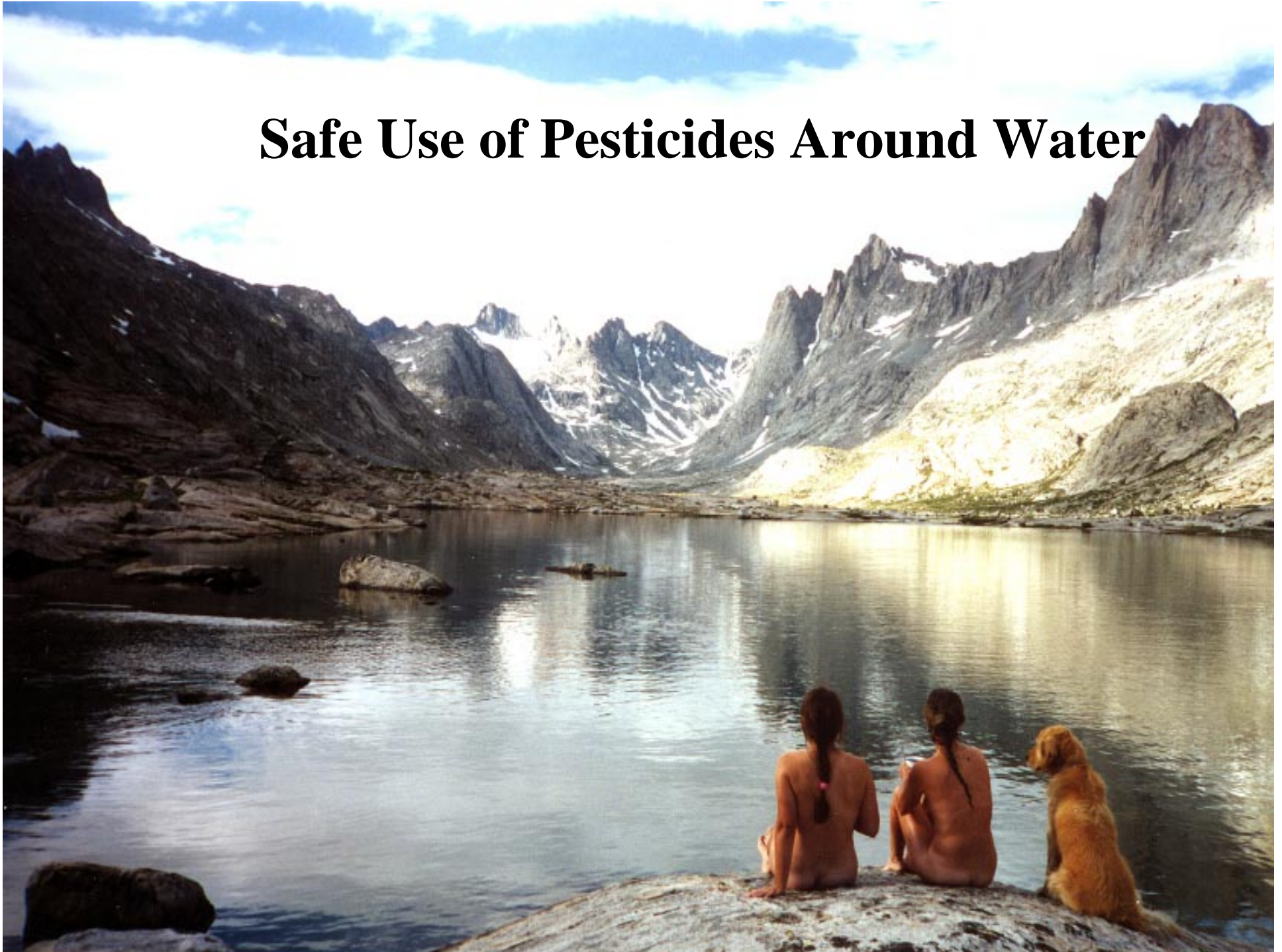




Safe Use of Herbicides Around Water

Safe Use of Pesticides Around Water



Safe Use of Herbicides Around Water



- **Prevention and Containment**
- **Surveying and small-scale eradication**
- **Management**
 - **Chemical**
 - **Grazing management**
 - **Biological**

Prevention and Containment

- Limit weed seed dispersal
 - Limiting vehicles
 - Washing vehicles and equipment
 - Weed free seed
 - Holding livestock before introducing
 - Education to land-users

Prevention and Containment

- Limit weed seed dispersal
- Contain neighboring infestations
 - Contain the encroaching borders that can be easily controlled
 - Funnel livestock or wildlife to easily controlled areas

Prevention and Containment

- Limit weed seed dispersal
- Contain neighboring infestations
- Properly manage desirable vegetation
 - Competitive plants
 - Proper grazing management

Systematic surveys and then small-scale eradication

- Key point....systematic and methodical (2-3 times/year)
- Early detection makes for easy eradication
- Combine surveys and eradication with good record-keeping
 - Helps determine # of years for control
 - Effectiveness of control methods
 - Response of both weed and desirable vegetation

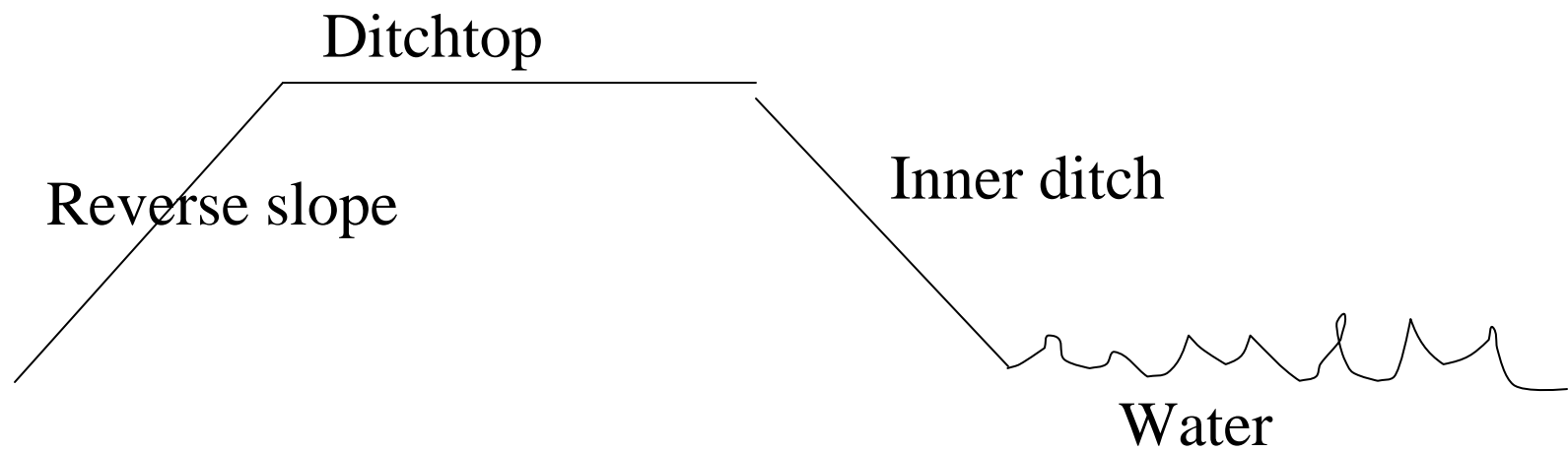
Management

- Chemical
- Biological
- Prevention

Chemical management

- At best the most you can hope for is seed management.
- Total eradication of large patches is almost impossible
- Flowing water or ditchbank

- Ditchbanks



Herbicides for Ditchbanks

- Make sure its labeled for ditchbanks
- Choose a herbicide with:
 - Low persistence
 - Low water solubility
- Time your application when runoff is unlikely
- Prevent physical drift

Solubility

- Amount of chemical that can be dissolved into a solution
- Expressed as parts per million.
- > 30 ppm means high solubility = high tendency to leach or runoff.
- Tordon = 400- 430
- 2,4-D = 890
- Assert = 1370
- Ally/Escort
 - 1750 (pH 5)
 - 2790 (pH 7)
 - 213,00 (pH 9)
- Paraquat = 7000
- Roundup = 12,000
 - Salt – 900,000 ppm

Common Herbicides Used

- Some 2,4-D products
- Rodeo

Less commonly use products include:

- * Garlon
- * Krenite

Herbicides – 2-4,D

- Various labels in Montana
 - Amine 4 Selective Weed Killer – Wilbur-Ellis
 - 2,4-D Amine No.4 – Wilbur Ellis
 - Amine 400 – PBI Gordon
- Some labels allow for overspray onto water

Herbicides - Rodeo

- Roundup labeled for aquatic uses
- Do not apply within ½ mile of potable water intake
- Must use approved (labeled) surfactants
- Non-selective

Herbicides - Krenite

- Do not apply to open water or where there is a danger of runoff.
- Used mainly for woody and brushy species
 - Take care with non-target species

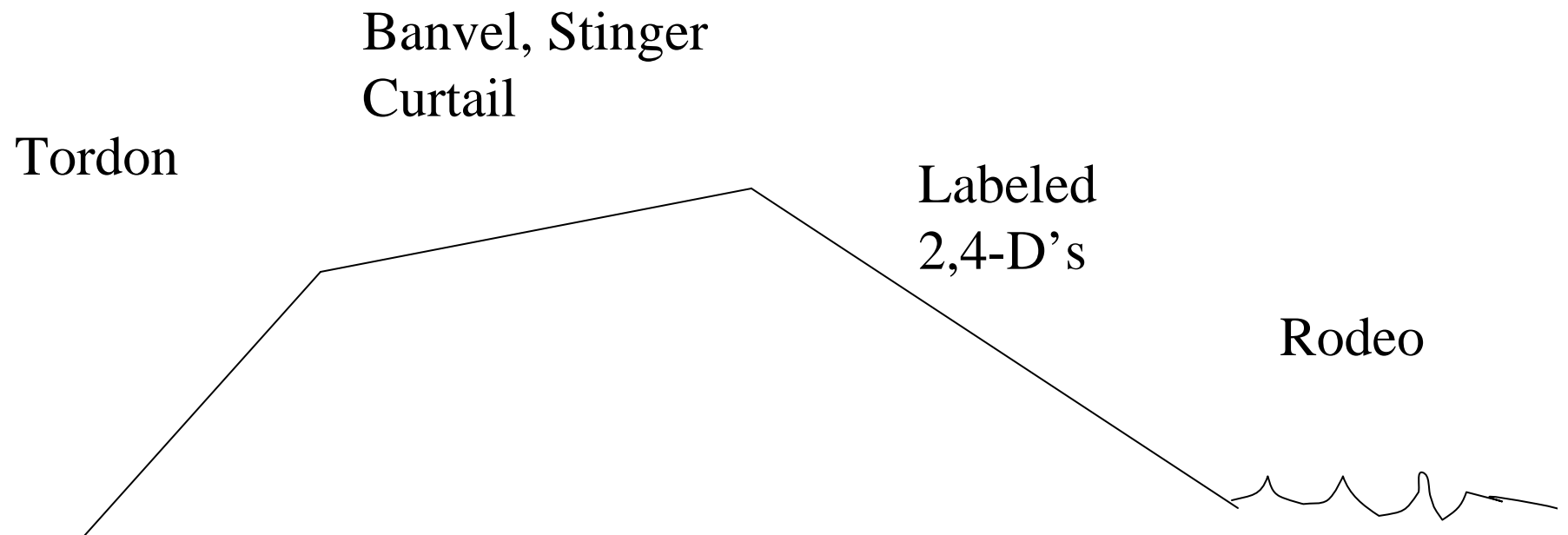
Herbicides - Garlon

- Do not apply to open water or below the high water mark

Safe Use of Herbicides Around Water

- Prevention and Containment
- Surveying and small-scale eradication
- Management
 - Chemical
 - **Grazing management**
 - Biological

- Herbicides & Ditchbanks



Biological Control

- Slow acting but reduces seed production and stresses plants
- KP... A main goal of riparian weed management is to control weeds immediately to prevent seed dispersal by moving water

