

Wild World of Pest Management
Larry Schulze, Professor Emeritus – Pesticide Education
University of Nebraska - Lincoln Extension
1613 No. 4th Rd., Eagle, NE 68347- 4048

1. **What is a pest?** A living thing that injures / annoys people or damages their property or environment.
2. **Types of Pests:** Insects - grasshoppers, wasps, ants Diseases - cedar apple rust
Animals - mice, rats, dogs? Weeds - dandelions, corn in soybean field
3. **Methods of Pest Control:**
Naturally Occurring Methods:
Climate - Coconuts (as a crop) are not native to NE, influenced by climate.
- Hissing Cockroaches are not native to Nebraska
- Rainfall, cold winters, etc. influences which weeds are common in various regions
Natural Enemies - Snakes, owls eat rodents, insects eat insects
Land and Oceans - Mountains/oceans prevent spread of pests (Atlantic Ocean example with Hessian soldiers & Hessian Fly during Revolutionary War)
Food Supply - Empty / full lunch box, pests thrive as long as water / food available
Optional Methods we can use:
Host resistance - grass seed box showing “disease resistance”
Biological control – cats eat mice, insects eat insects (lady beetles, praying mantis, etc.)
Cultural control - mulch, fertilization of a crop or turf, irrigation, garden hoe (tillage)
Mechanical control - fly swatter, mouse trap, hand picking
Sanitation – clean grass seed, seed box showing “no weed seed”
Chemicals (pesticides) – such as herbicides, fungicides, insecticides, rodenticides
4. **Pesticides:** chemicals to destroy pests, control their activity, or prevent them from causing damage.
5. **Many naturally occurring pesticides, some are sold as pesticides:**
Rotenone (from the dried roots of the cube plant, used as an insecticide since 1848)
Sulfur (used as a fungicide, to prevent plant diseases)
Pyrethrin insecticide (from dried chrysanthemum flowers, used since early 1800s)
Pepper repellent (rabbits, squirrels)
Caffeine (coffee, naturally occurs in plants, inhibits insect feeding)
Walnut tree [produces a herbicide (juglone) via its roots that stunts / kills tomato plants]
Note: Some naturally occurring pesticides are very dangerous. Examples: strychnine, cyanide
6. **Some synthetically produced pesticides:**
Roundup herbicide (kills weeds, very low toxicity, no soil residue)
Lysol laundry detergent (used in homes to kill bacteria)
Clorox disinfectant bleach (used in homes, laundry disinfectant)
Comet cleanser (kills bacteria on kitchen counters, in sinks, bathrooms)
Pine-Sol cleaner (kills bacteria on walls, floors)
Scent-Off or Repel pellets / granules (to repel dogs / cats off lawns, gardens)
Chlorine (used in swimming pools, kills bacteria, makes water safe to swim in)
7. **Important: Use pesticides with care, all can be toxic if the dose is large enough**
Read and follow the pesticide label

