

Wild World of Pest Management
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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

