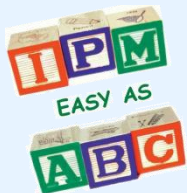




Ground Invasion by Voles

Nebraska Extension



Voles:

General Background

- ❖ AKA meadow mice
- ❖ Rodents: They gnaw
- ❖ Vegetarian: seeds, roots, grasses, bark



Photo: Jack Kelly Clark, courtesy
University of California Statewide
IPM Program



Three Vole Species Reside in Nebraska

- ❖ prairie vole—statewide & most common
- ❖ meadow vole—almost statewide
- ❖ pine vole—S.E. corner of the state



prairie vole--gray



meadow vole--green



pine vole--red



Nebraska's Voles

Photo: Steve Hahus, All Wild About Kentucky's Environment

❖ Prairie & Meadow Voles

➤ Large: 3.5-7.0 inches

➤ Nests:

✓ surface or shallow burrows

➤ Reproduction:

✓ Explosive—

❖ 3 months to mature

❖ 5-10 litters/yr

❖ 3-5 yg/litter



Prairie Vole

Photo: USDA-APHIS



Meadow Vole



Nebraska's Voles

❖ Pine Voles

- Small: 2.8-4.2 inches
- Nests: burrows
 - ✓ < 1 ft deep
- Reproduction:
 - ✓ steady
 - ❖ 3 months to mature
 - ❖ 1-6 litters/yr
 - ❖ 2-4 yg/litter



Vole Damage Identification

❖ Trails in grass

- Caused by travel & clipping the grass



Photo: University of Nebraska–Lincoln

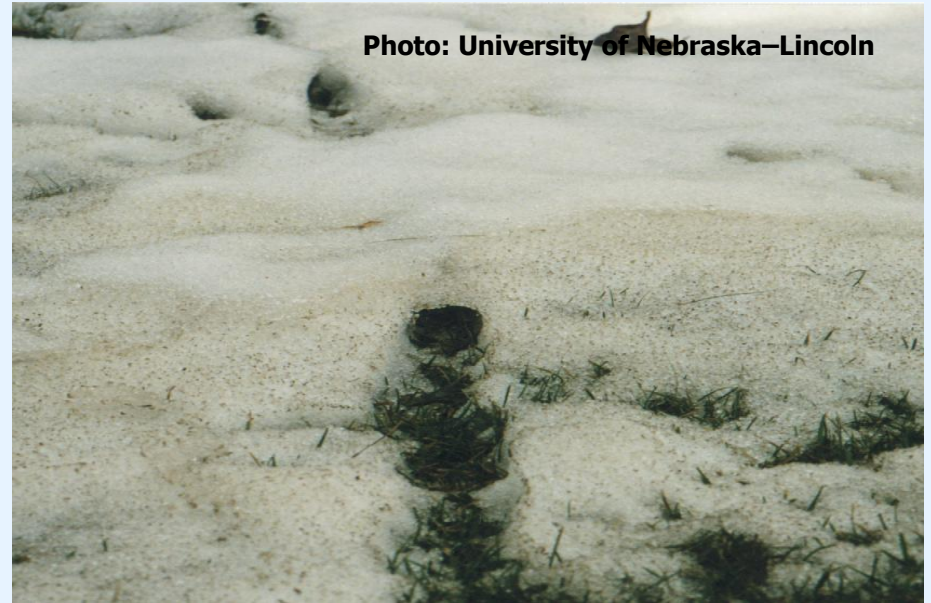


Vole Damage Identification

Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln



Voles don't hibernate. They are active even under snow.



Vole Damage Identification

- ❖ Debarking/Girdling
- ❖ Tooth marks
 - 1/16" wide

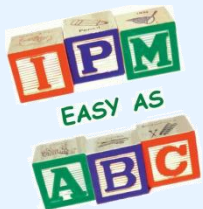


Photo: M.E. Tobin. Copyright New York State Integrated Pest Management Program, Cornell University



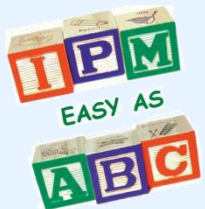
Vole Management Non-Lethal

- ❖ Habitat Modification
- ❖ Install Barriers
- ❖ Use Repellents



Habitat Modification

- ❖ Reduce ground cover
 - Remove crawling ivies
 - Remove lawn debris
 - Keep grass mowed
 - Gravel borders



Habitat Modification

❖ Reduce Food

➤ Bird feeders

- ✓ Voles will eat the spilled seed
- ✓ Well fed animals reproduce more rapidly



Photo: University of Nebraska-Lincoln



Barriers



Photo: W. Paul Gorenzel, courtesy
University of California Statewide IPM
Program



- ❖ Fencing: at least 12" high and buried 6"
 - ❖ Fencing mesh should be $\frac{1}{4}$ " weave
 - ❖ Include weed free zone
 - ❖ Plastic cylinders: above potential snow line.
- Screen the top opening to prevent bird entrapment.



Photo: University of
Nebraska–Lincoln

Repellents

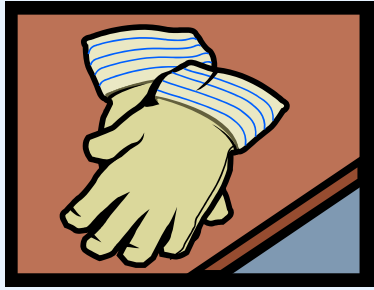
- ❖ Active ingredients
 - Thiram
 - Capsaicin
- ❖ Can't use for plants destined for human consumption
- ❖ Can be expensive \$\$\$
- ❖ Effectiveness weakened by rain



Vole Management— Lethal

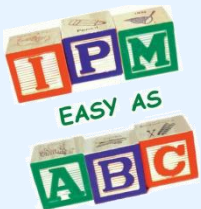
- ❖ Trapping
- ❖ Toxicants





Trapping Safety

- ❖ Wear appropriate safety equipment, such as gloves, when handling traps and animals
- ❖ Avoid setting traps in areas with high human/pet traffic
- ❖ Check traps daily. Don't set them if you can't check them the next day.



Trapping

❖ Trapping with snap traps

- Place trap perpendicular to trail so that vole must walk over trigger.
- Cover traps with boxes to prevent non-target capture (see next slide).



Photo: University of Nebraska–Lincoln



Vole Trapping Baits

- ❖ Baiting is NOT necessary if you find trails.
- ❖ Peanut butter- be careful around those with allergies to peanut butter
- ❖ Bird seed- just glue seed to trap trigger (keep out of view of birds)
- ❖ Oats and molasses (keep out of view of birds)

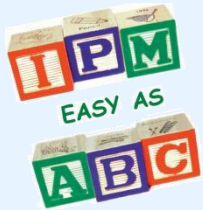


Trapping Alternative Method

- ❖ Place two snap traps in the trail with triggers facing away from each other.



Photo: University of Nebraska–Lincoln

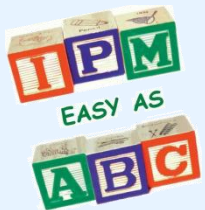


Trapping

- ❖ Multi-catch mouse traps
 - All varieties will work
 - Place opening in line of trail
 - Baiting is optional



Photo: University of Nebraska–Lincoln



Toxicants



- ❖ Follow Label Instructions
- ❖ THE LABEL IS THE LAW!



Toxicants

❖ Zinc Phosphide

- Most effective spring and fall
- Use during fair weather
- Mow grass prior to baiting
- Place in runs, burrows or bait stations
- Never place in piles or on bare soil



Fumigants

❖ Not recommended

- Vole tunnels are too difficult to fumigate effectively

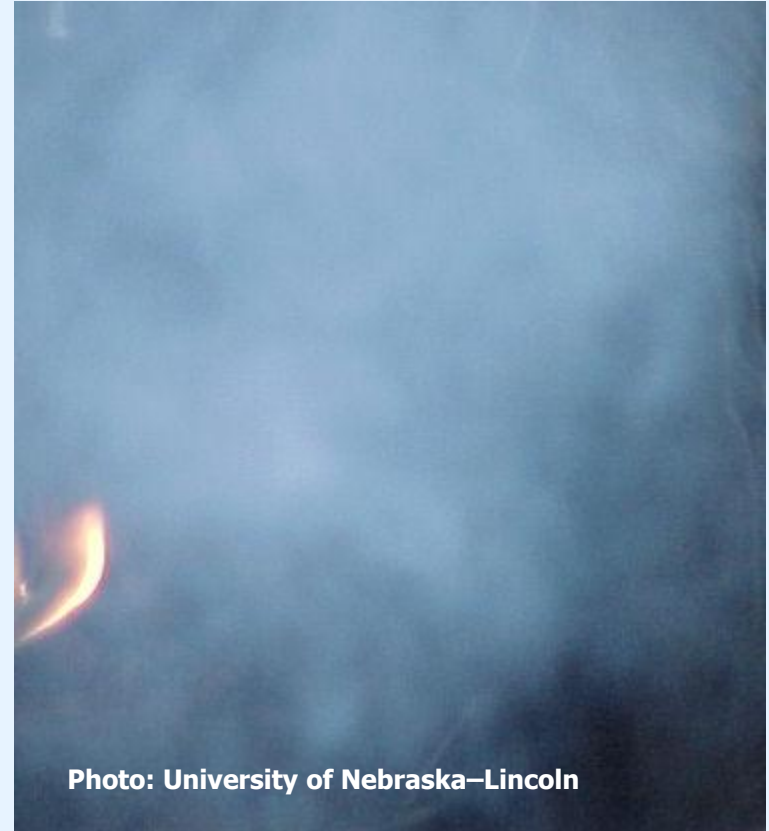


Photo: University of Nebraska–Lincoln



Resources & Information

❖ Internet Center for Wildlife Damage Management

➤ <http://icwdm.org>

❖ Prevention & Control of Wildlife Damage

➤ <http://icwdm.org/handbook/index.aspx>



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