A STITCH IN TIME ACTUALLY SAVES NINE
CALIFORNIA GROUND SQUIRREL CONTROL

SHEILA BARRY
LIVESTOCK AND NATURAL RESOURCES ADVISOR
The President called upon all Californians to destroy the ground squirrel. This action followed the Governor proclaiming squirrel week. When did this happen?

1.1808
2.1918
3. It never happened
4.1945
5.1984
The Rodent Control Division of the California wanted to control squirrels in 1918 because..?

1. THEY WERE NOT NATIVE
   - 0%
2. THEY DESTROYED TOO MUCH FOOD
   - 26%
3. THEY HARBORDED BUBONIC PLAGUE
   - 35%
4. THEY DESTROYED WATER CONTROL STRUCTURES
   - 39%
History of California Ground Squirrel Control

CA State Commission of Horticulture

November-December 1918
When was the first notable effort to control ground squirrels in California?

1. SINCE THE 1940S 36%
2. SINCE THE EARLY 1800S 46% (correct)
3. SINCE THE LATE 1500S 7%
4. SINCE THE 1970S 11%
Squirrel infestations around the California missions were attributed to...?

1. Loss of predators
   - 10%
2. Native Americans
   - 23%
3. A new food supply
   - 23%
4. All of the above
   - 43%
WHAT WERE SQUIRRELS EATING ON RANGELAND?

1. NATIVE BUNCHGRASSES.
2. BUR CLOVER.
3. FOXTAILS.
4. FILAREE
200 SQUIRRELS = 1 STEER
COMMON, NATIVE
CALIFORNIA GROUND SQUIRREL

Photo Credit: Paul Sullivan
POSSIBLE VALUES
Squirrel Fricassee
WESTERN BURROWING OWL
ENDANGERED
CALIFORNIA TIGER SALAMANDER
SAN JOAQUIN KIT FOX

Photo Credit: Greg Schechter
WHY DO WE CONTROL SQUIRRELS?

Ground Squirrels are a detriment to:
- Dams
- Railroad Beds
- Levees
- Private and Public Roads
- Agriculture
- Bridge Abutments
CONTROL METHODS

- Habitat modification
- Trapping
- Fumigation
- Toxic bait
- On the Horizon
MODIFY HABITAT

- MOST PALATABLE, LESS EFFECTIVE
- Remove brush piles and debris
- Flood irrigate
- Cultivate frequently
- Dog presence
- Deep rip old burrows
- Provide for natural predators i.e. rattlesnakes, coyotes
California Ground Squirrel - Calendar of Management

- No control method is effective when squirrels are hibernating.
- Best time to control squirrels-control removes breeding.
- Bait less effective as a result of squirrels storing bait.
- Burrow fumigants most effective.
- Baits not effective.

Poison baits are most effective during this period.

From: University of California Ground Squirrel BMP website: http://groups.ucanr.org/GSBMP/index.cfm
KILL TRAPS

- Most effective Feb-Oct
- Keep away from pets and kids
- Some traps require baiting i.e. box and tunnel
- Coniber traps do not require baiting
- Check traps daily
- Dispose of properly
LIVE TRAPS

- Most effective Feb-Oct
- Check traps daily
- Dispatch humanely and dispose of properly
Why are traps most effective February-October ...

1. Squirrels will be interested in the bait
2. Squirrels are out and about
3. Squirrels are hibernating of water

- 5%
- 41%
- 3%
What should you do with a live squirrel?

1. Release into wilderness
2. Drown it a bucket of water
3. Shoot it
4. Kill it in a gas chamber
5. Sun cook it
FUMIGATION

- Use when soil is moist (Feb-April)
- Identify active burrows
- Fill in entrance where smoke escapes
- Do not use under or near occupied buildings
TOXIC BAIT (EARLY SUMMER)

- Anticoagulant treated grain
- Must be eaten in several feedings
- Use bait station or box
- Kills over 2 to 4 weeks
Live Trapping Versus Treated Grain Bait Experiment
PURPOSE

To determine the effectiveness of live trapping moderate to high populations of ground squirrels and to perform a comparison study of time, expense and effectiveness of live trapping versus broadcast treatment of 0.01% diphacinone treated bait.
LIVE TRAPPING

• 12 live traps were placed

• 152 Ground Squirrels were captured

• $7,349.38 per linear mile or $5,074.36 with projected efficiencies
TREATED GRAIN BAIT

DIPHACINONE 0.01%
TREATED GRAIN WAS USED

$220.40 per linear mile

925 Linear Miles
Diphacinone and chlorophacinone are first generation anticoagulant.

Breakdown of the compound occurs naturally with sunlight and soil microbial action.

It requires multiple feedings for effective control and breaks down relatively rapidly in animal tissues when compared to second generation anticoagulants.
Second generation anticoagulants are intended for a single feeding.

Brodifacoum, Bromadialone or Difethialone
ALTERNATIVE RESOURCES

Not Federally or California Restricted

Same Active Ingredient Different Formulation

Kaput GROUND SQUIRREL BAIT
This product may only be used within 100 feet of buildings to control California Ground Squirrels
KILLS CALIFORNIA GROUND SQUIRRELS AND THEIR FLEAS

NET WT. 5 LBS. (2.26 kg)

KEEP OUT OF REACH OF CHILDREN
CAUTION HARMFUL IF SWALLOWED, SEE BACK PANEL FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.
SECONDARY KILL FROM GROUND SQUIRREL POISON IS MOST COMMON FROM.....?

1. 1ST GENERATION
2. 2ND GENERATION