

## USDA APHIS WILDLIFE SERVICES



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## VERTEBRATE OUTLAWS IN YOUR CROPS

- THE PERPS

- WHITE-TAILED DEER – M.O.

- CANADA GEESE- M.O.

- VOLES – M.O.



## THE CRIME SCENE

- CROPS
- ORCHARDS
- RIGHT OF WAY
- NEIGHBORS



## WHITE-TAILED DEER

- THE EVIDENCE
  - THE PRINTS
  - THE POOP
  - THE CHOW
  - ON THE LAM



## "MIRANDA RIGHTS"

- WHITE-TAILED DEER
  - THE FUZZ – IDNR
  - THE STATUS – GAME ANIMAL
  - THE PAPER –
    - HUNTING LICENSE
    - SEASON TAGS
    - DEER DAMAGE TAGS
    - THE PAYOFF

## DEFENSE STRATEGIES

- LEGAL – NO PERMIT REQUIRED
  - FENCING
  - ALTERNATIVE CROPS
  - HARASSMENT
  - REPELLENTS
- LEGAL – PERMIT REQUIRED
  - HUNTING SEASON
  - ADDITIONAL TAGS
  - OUT OF SEASON TAGS

## FENCING



## HARASSMENT



## REPELENTS

- TASTE REPELENTS – NOT PRACTICAL IN CROPS
- ODOR REPELENTS – INEFFECTIVE
  - BLOOD
  - URINE

## DEFENSE STRATEGIES

- ILLEGAL
  - TOXICANTS
  - POACHING
  - DRUGS
  - SPOTLIGHTING
  - TRAPPING
  - THE BUMPER METHOD

## THE VERDICT

- IPM
  - CROP
  - SURROUNDING ENVIRONMENT
  - CAPABILITIES
  - RELATIVE COSTS



## THE SENTENCE

- PROPERTY OWNER IMPLEMENTED
- HUNTERS
- HIRED GUN

## CANADA GEESE

- THE EVIDENCE

- THE ETA
- THE HIT
- THE BABES
- THE GETAWAY
- THE POOP



## “MIRANDA RIGHTS”

- CANADA GEESE – FEDERAL

- THE UNTOUCHABLES – USFWS
- THE LAW – MIGRATORY BIRD TREATY ACT OF 1918
- THE STATUS – MIGRATORY GAME BIRD
- THE PAPER
  - MBTA DEPRADATION PERMIT

## "MIRANDA RIGHTS"

- CANADA GEESE - STATE
  - THE FUZZ - IDNR
  - THE STATUS – GAME BIRD
  - THE PAPER –
    - HUNTING LICENSE
    - WATERFOWL STAMP
    - BAG LIMITS
    - THE PAYOFF

## DEFENSE STRATEGIES

- LEGAL – NO PERMIT REQUIRED
  - FENCING
  - ALTERNATIVE CROPS
  - HARASSMENT
  - REPELLENTS
  - ABANDONED NEST DESTRUCTION
- LEGAL – PERMIT REQUIRED
  - HUNTING SEASON
  - ROUND UP
  - EGG AND NEST DESTRUCTION



## HARASSMENT



## NEST DESTRUCTION



## REPELLENTS

- TASTE REPELLENTS
  - LESS IS MORE
  - SELECT CRITICAL AREAS
  - DISCOURAGES FEEDING ONLY
  - SUSCEPTIBLE TO RAIN/MOWING
  - MAY REQUIRE MULTIPLE APPLICATIONS
  - FOLLOW LABEL DIRECTIONS
  - PART OF AN OVERALL IPM PROGRAM

## DEFENSE STRATEGIES

- ILLEGAL
  - TOXICANTS
  - POACHING
  - TRAPPING
  - WHACKING

## THE VERDICT

- IPM
  - CROP
  - SURROUNDING ENVIRONMENT
  - CAPABILITIES
  - RELATIVE COSTS



## THE SENTENCE

- PROPERTY OWNER IMPLEMENTED
- HUNTERS
- HIRED GUN

## VOLES

- THE EVIDENCE

- THE ROUTE
- THE HIDE-OUT
- THE GANGS
- THE DAMAGE



## THE ROUTE

- VOLE RUNS



## THE HIDEOUT

- VOLE COLONY BURROW



## THE DAMAGE

- CROP DAMAGE
- ORCHARD DAMAGE



## "MIRANDA RIGHTS"

- VOLES
  - THEY HAVE THE RIGHT TO RUN
  - THE STATUS – NON-GAME ANIMAL
  - THE PAPER - NONE

## DEFENSE STRATEGIES

- LEGAL – NO PERMIT REQUIRED
  - HABITAT MODIFICATION
  - ALTERNATIVE CROPS
  - REPELLENTS
  - PRODUCTION METHODS
  - TRAPPING
- LEGAL – PERMIT REQUIRED
  - TOXICANTS – PESTICIDE APPLICATORS LICENSE

## HABITAT MODIFICATION



## PRODUCTION METHODS



## TOXICANTS



## DEFENSE STRATEGIES

- ILLEGAL
  - UNREGISTERED TOXICANTS
  - MISUSE OF PESTICIDE
  - HOME REMEDIES



## THE VERDICT

- IPM
  - CROP
  - SURROUNDING ENVIRONMENT
  - CAPABILITIES
  - RELATIVE COSTS

## THE SENTENCE

- PROPERTY OWNER IMPLEMENTED
- HIRED GUN

## TAKE A BITE OUT OF CRIME

- IDENTIFY NEEDS
- QUANTIFY DAMAGE COSTS
- ADD NEW TOOLS
- INCORPORATE VERTEBRATES INTO SCOUTING ACTIVITIES