Pinkeye Prevention & Treatment in Cattle

Dr. Charles Ozanian
Ferndale Veterinary Clinic
Ferndale, CA

John Maas, DVM, MS, DACVN, DACVIM
Extension Veterinarian
School of Veterinary Medicine
University of California, Davis

Pinkeye Prevention
Key Steps

- Prevent irritation to the eyes of cattle
- Vaccination
- Immune response of cattle
- Fly control
- Cattle handling
- Treatment

Prevent Irritation to Eyes

- **Dust**—Sprinkle corrals before working cattle
- **Tall grass and seed heads**—Mow pastures before putting young calves and cows if grasses are tall and have headed out
- **Pollen**—usually from grasses and mow when practical
- **Stickers/plant awns/foxtails**—often grow in drier parts of pastures, consider Roundup or soil sterilent in problem areas

Vaccination to Prevent Pinkeye

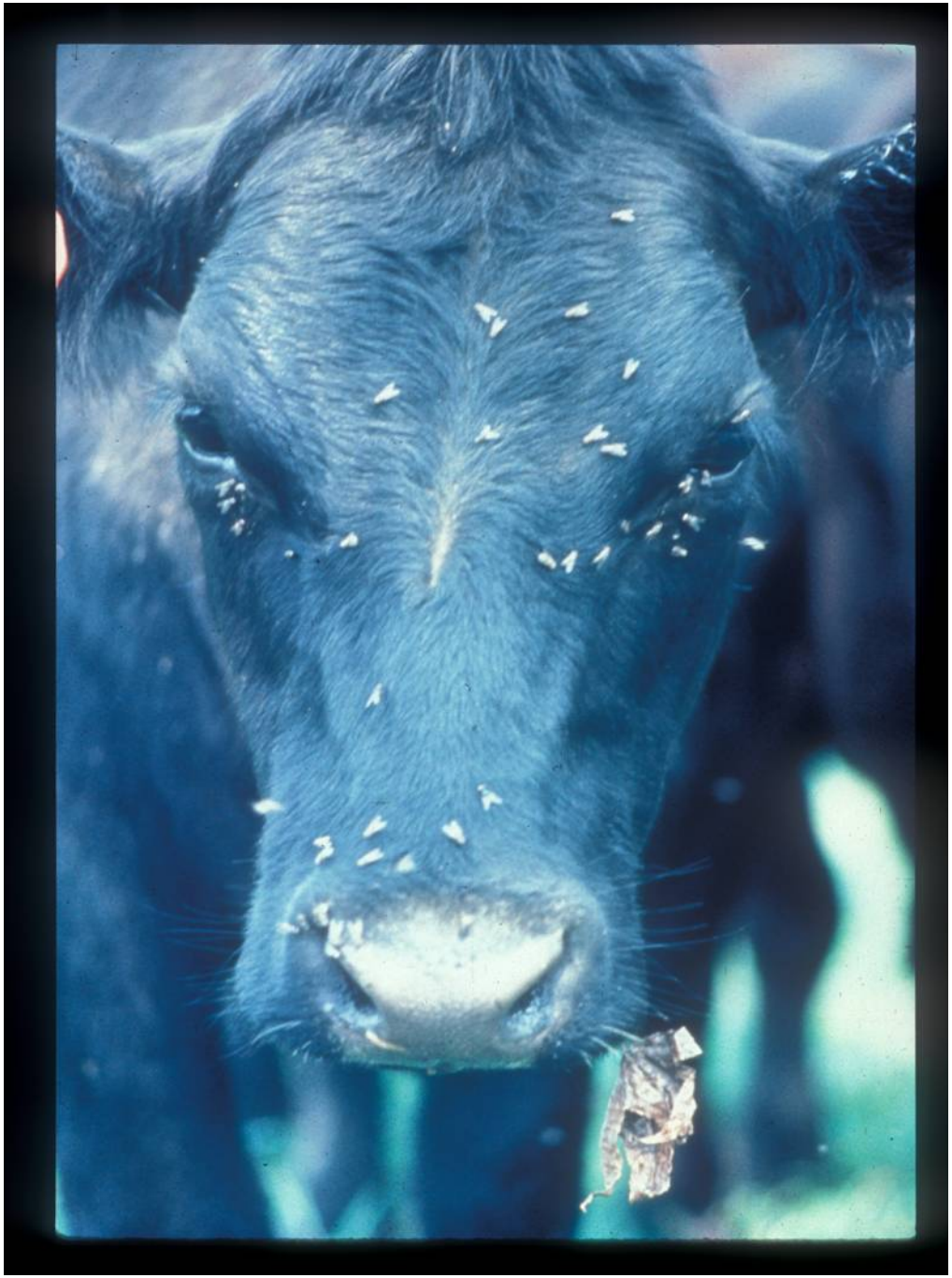
- **Limit to effectiveness of current vaccines**
- **Cross protection of strains not great**
- **Vaccines take time to work**—14 days for first major antibody response. Some vaccines require a booster (2^{nd}) dose. Practically, count on 35-42 days for maximum protection.
- **Work closely with your veterinarian** in selecting a vaccine. Vaccinate early/before fly season.

Immune Response & Pinkeye

- **Calves most susceptible to Pinkeye**
- **Copper (Cu) deficiency**
- **Selenium (Se) deficiency**
- **Common for calves to run out of Se & Cu at 3-5 months of age**
- **Protein**—dry feed can be a problem
- **Other trace minerals/vitamins**—I, Zn, A, E

Fly Control & Pinkeye

- Control of face flies a critical factor in Pinkeye prevention
- Also, controls horn flies which are a major economic loss for cattle
- Many tools to aid in fly control—none are perfect!



Fly Control & Pinkeye Tools

- Ear tags
- Sprays
- Pour-ons
- Back rubbers/face rubbers
- Dust bags
- Feed through insecticides

Fly Control—Ear tags

Many brands

Two main classes—Organophosphates and Pyrethroids

Two relatively new classes—Organochlorine (Avenger—Endosulfan) & Avermectin (XP820—Abamectin)

Fly Control—Ear Tags

- Put them in calves—most susceptible
- Delay application—use sprays or other methods early in fly season. Limited time, highest release early, half life.
- Alternate class of drugs—OP to Pyrethroids to OP or others
- Alternate class of drugs—ear tags, sprays, etc
- Can cause irritation in ears
- Remove in fall—decreases resistance

Fly Control Sprays

- Best for early season or “outbreaks”
- Requires grouping of cattle
- Read directions carefully
- OPs, Pyrethroids, & Spinosad (Elector)

Fly Control Pour-ons

- Requires excellent restraint—chute work
- Several drug classes
- OPs—Ultra-Saber, Lysoff
- Pyrethroids—Cylence, DeLice, Expar, Atroban
- Elector—Spinosan
- Pyrethroid + IGR—Clean Up

Fly Control Back Rubbers & Dust bags

- Older compounds
- Cattle use daily
- Shade and rest areas often work best
- Near water or salt areas—keep some distance so feed or water doesn’t become “contaminated”

Fly Control Feed Throughs

- Rabon (OP)
- Methoprene (IGR)
- Usually in a salt mineral mix or other supplement form
- Voluntary consumption—often calves eat very little
- Drug not absorbed in GI tract—acts in manure (obligate site of fly larvae)

Fly Control—Cattle Handling

- Don’t spread the disease yourself
- Disinfect halters, nose tongs, etc
- Use disposable rubber gloves
- Use new disposable needles around eyes
- Use BQA procedures when giving antibiotics
- Wash contaminated clothes or gear
- Disinfect tools (forceps, hemostats) used for pulling foxtails

Pinkeye Control--Treatment

- Effective Treatment of cases is a critical point in prevention
- More than 5% of calves with Pinkeye—review your program with your veterinarian
- More than 30% of cases needing retreatment—review your program
- Use drugs that make sense from a scientific standpoint
- Culture and antibiotic sensitivity may be a good idea if >5% of calves or >30% re-treatments needed

Pinkeye in Cattle
Treatment

- Bacterial disease
- Many antibiotics used
- Some actually “work” or are proven to be efficacious


NDC 46066-493-25
Penicillin G Procaine
Aqueous Suspension
Injectable Antibiotic for Animal Use Only
300,000 units per mL
Multiple Dose Vial
NET CONTENTS: 250 mL
48 HR MILK DISCARD
Aspen
VETERINARY RESOURCES, LTD.
Manufactured for Aspen Veterinary Resources, Ltd.
Kansas City, MO 64120
SHAKE WELL BEFORE USING
FOR INTRAMUSCULAR USE ONLY
WARNING: Not for use in horses intended for food. Milk taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. Discontinue use of this drug for the following time periods before animals are slaughtered for food: Cattle, 10 days; sheep, 6 days;

Pinkeye in Cattle
Treatments

- Long-acting Oxytetracycline (200 mg/ml—Biomycin® 200 or LA 200®). Dosed at 9 mg/lb (20 mg/kg) SQ at 48-72 hour intervals
- Tulathromycin (Draxxin®) 1.1 mg/lb (2.5 mg/kg) SQ as single treatment
- Florfenicol (Nuflor®) 9 mg/lb (20 mg/kg) IM repeated in 24-48 hours
- Florfenicol (Nuflor®) 18.2 mg/lb (40 mg

Pinkeye in Cattle
Treatments

- Ceftiofur (Excede®) 3 mg/lb (6.6 mg/kg) SQ given as single dose
- Procaine Penicillin G 300,000 IU given in the bulbar conjunctiva for 3 days
- Addition of dexamethasone 1 mg to Pen G treatment showed no detectable advantage or disadvantage in IBK management—no subjective measurements possible

Pinkeye in Cattle
Treatments

- Adjunctive therapy
- Banamine®
- Eye patches
- Fly treatments—sprays
- Treatment associated spread of microbes—a case for use of disposable gloves


4697
Liquamycin®
LA-200®
(oxytetracycline injection)
Antibiotic
Each mL contains 200 mg of oxytetracycline base as oxytetracycline amphoteric.
For the treatment of disease in beef cattle, nonlactating dairy cattle and swine.
Net Contents: 500 mL
pfizer
Liquamycin® LA-200®


SHAKE WELL
Furox®
BRAND OF FURAZOLIDONE
AEROSOL POWDER
TOPICAL ANTIBACTERIAL
Active Ingredient
Furox® (brand of furazolidone) 10%
Inert dispersing agent and propellant 90%
FOR ANIMAL USE ONLY
NET WT. 2.8 OZ (79G)
Manufactured for
SB SmithKline Beecham
Animal Health
West Chester, PA 19380
Furox® and the Circle Design are trademarks

Pinkeye in Cattle

- QUESTIONS?
- COMMENTS!
- SUGGESTIONS!