

MANAGING JOHNE'S DISEASE ON FARM: LIVESTOCK MANAGEMENT

Understanding the Risk

Johne's disease is caused by *Mycobacterium avium* subspecies *paratuberculosis* (MAP), a tough bacterium that can survive in the environment for months. Identifying infected animals and creating a Johnes disease management plan is the first step to controlling the spread of disease. New animals can be infected when exposed to contaminated manure, when the animal is under 6 months of age. The disease is slowly progressing, and animals will not show symptoms until later in life.

Johnes Disease in the Animal:

- **Bacterial infection:** No treatment for Johnes's disease, once infected the animal is lifelong carrier
- **Symptoms:**
 - o Persistent diarrhea (cattle) or pasty manure (small ruminants)
 - o Weight loss with normal appetite
 - o Soft swelling of the jaw ("Bottle Jaw")
 - o Declining or reduced herd productivity.
- **Animals affected:** Cattle, goats, sheep, alpacas, bison, deer, elk, other ruminants
- **Transmission:** Fecal-oral route or in utero transfer
- **Diagnosis:** Veterinary consultation with PCR and fecal culture. The ELISA is a screening and detection assistance test. Make sure the animal official IDs are recorded on the testing results!

Johnes Management Reducing the Spread:

Control & Testing

- Cull clinical and shedding animals immediately (slaughter only)
- Test animals prior to giving birth and maintain Johnes's free birthing spaces
- Test male animals! Both castrated and uncastrated (often overlooked)
- Once identified, work with veterinarian to schedule regular screening of all animals

Colostrum & Youngstock Care

- **DO NOT** feed colostrum from Johnes's positive animals
- Use colostrum replacer or from negative Johnes tested animals only
- Separate youngstock from adult manure; introduce to main herd only after 6 months old
- Early removal of young stock from positive animals, and accurate record keeping help slow the spread. Use records to identify young stock that came from Johnes's positive animals and test them when they become eligible (20% chance of in utero transfer of the disease)

Biosecurity & Sanitation

- Maintain clean, dry housing and pastures
- Thoroughly disinfect boots, hands and clothing before working with young stock.
- Work with healthy animals first, then infected or suspect animals
- Single use sleeves and gloves only
- Keep feed, water, and milk manure free
- Do not feed on the ground; use elevated feeding systems to reduce risk
- Wash and sanitize bottles, tools and other supplies with soap and water, then apply a tuberculocidal disinfectant per label directions (removing organic matter first)
- Separate Feed and Manure equipment should be used, or take precautions to clean and sanitize between every chore

Key Takeaway:

Johne's control starts with testing, separating and maintaining clean environments. Preventing young animals from exposure is the most effective step to protect your herd and your bottom line.

For more information on Johnes Disease Management contact:

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