

# FMD BATTLE BOOK: A DAIRY FARMER'S ACTION PLAN

**Strategy: Triage. Blitz. Manage Pain. Maintain Intake.**

## THE "SILENT STATUS" RULE (CRITICAL FOR MULTI-FARM OPERATIONS)

*This is the single most critical concept for containment.*

- **The "Lag" Factor:** You will only find out you are infected **7 to 14 days after the fact**. By the time you see symptoms, you have been spreading it for a week.
- **Treat ALL Your Farms as Positive:** If you own multiple units (e.g., a heifer farm and a milking platform), you must assume **ALL** of them are already positive.
  - **STOP MOVEMENT:** Do not move staff, tractors, feed wagons, or managers between your own farms. You are the most likely vector to infect your own clean herds.
- **The Vet/Visitor Trap:** Vets may knowingly visit FMD-positive herds on a Friday, but **nobody knows the status of the herds they visited from Monday to Thursday**. Those "clean" herds might actually be incubating the virus.
- **Trust No One's Status: Nobody knows their true status.** Treat every visitor and every one of your own units as a "Red Zone."

## PREFACE: BRAND NAMES & DISCLAIMER

*The brand names listed below (e.g., Rimadyl, Excede) are guidelines based on successful protocols used in KZN. **Alternative generics or equivalent brands** available from your vet or co-op are perfectly acceptable. The goal is the active ingredient and the function, not the specific label.*

## THE WARNING

*Before you start, accept the reality of what is coming:*

- **Grazing is Impossible:** Grazing is the most difficult aspect. Cows simply will not graze. They eat things like wet **brewers grain and silage** much better than pasture.
  - **The "Starvation" Period:** Expect cows to refuse food for up to **two weeks**.
  - **Financial Discipline:** Accept the ravages of the disease. Do not bankrupt the farm trying to "cure" the virus. It is going to be expensive—be conservative with every cent you spend. **Focus on survival, not production.**
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## THE SURGE: BRACING FOR THE 10-DAY STORM

What It Actually Feels Like:

### 1. THE SPEED OF ATTACK (It Happens Overnight)

- The Trap: You will see 10 drooling cows on Day 1 and think you can manage.
- The Reality: By Day 3, you will have 500+ cases. The virus moves faster than you.
- The Feeling: It feels like "being slapped across the face." The shock is instant. You will feel overwhelmed immediately.

### 2. THE "HELL WEEK" (Days 4–14)

This is the surge. It is not a medical event; it is an endurance event.

- The Hours: Forget normal shifts. Expect to start early and finish at late. You will likely milk very long hours for 10 days straight.
- The Parlour War:
  - Cows will not walk in. You will need people just to push them into the parlour.
  - Cows will kick clusters off constantly due to pain. You will be re-attaching units hundreds of times per session.
- The Equipment Failure:
  - Warning: Your vacuum pumps and machinery are not built for 18-hour continuous running. Check on them.

### 3. THE NUMBERS (What to Expect)

- Mastitis Explosion: Out of 1,000 cows you won't just treat 5 or 10 cows. Expect to treat 250–300 cows per milking for mastitis during the peak.
- The "Hospital" Illusion: Your "Hospital Herds" will eventually become bigger than your "Clean Herd." You will effectively be milking a hospital farm.

### 4. THE EMOTIONAL TOLL

- The Noise: The sound of cows in pain (sucking noises, bellowing) is constant and draining.
- The Smell: Acidosis (from not eating fibre). The dairy will smell different.
- Decision Fatigue: You will be so tired you cannot make simple decisions.

### 5. THE THREE WAVES OF SYMPTOMS

Don't get comfortable when one stops. The next one is coming.

- **WAVE 1: THE MOUTH (Days 1–5)**
  - What happens: Drooling, fever, refusing to eat.
  - The fight: Getting them to eat (Wet Feed).
- **WAVE 2: THE TEATS (Days 5–15)**
  - What happens: Blisters rupture. Teats peel raw. Mastitis peaks.
  - The fight: Keeping clusters on cows (Numbing Spray).
- **WAVE 3: THE FEET (Days 15–30)**
  - What happens: Just as they start eating again, they go lame. Hooves "creak" and some detach.
  - The fight: Moving cows who cannot walk (Bedding & Feed access).

# PART 1: PRE-ARRIVAL PREPARATION (DO THIS NOW)

*When the outbreak hits, you will not have time to think or shop. You need a "Starter Pack" in your store room immediately to handle a weekend outbreak.*

## 1. The "War Chest" (Your Store Room Starter Pack)

*Compare this list against your current inventory. These are the essentials to have on hand Day 1.*

- **Pain & Fever (The "Labor Savers"):**
  - **Rimadyl (x3 Bottles):** *Critical anti-inflammatory.*
  - **Vetcam / Metacam:** *Alternative.*
  - **Lignocaine / Scripts Spray (x3 Bottles):** *Essential for numbing teats in the parlour.*
- **The "Day 1" Blitz Meds** (Enough to inject the **entire herd** on Day 1):
  - **Eprecis (0 milk withdrawal)** *It is safer to use on lactating animals than Ivermectin.*
  - **Vitamin B Complex**
  - **Vitamin ADE**
- **Wound, Teat & Hoof Care:**
  - **Kyron Acriflavine in Glycerin:** *Soothes and promotes healing for raw, peeling, or inflamed teats while preventing secondary bacterial infection.*
  - **Teat Cream / Milking Cream:** *To mix with the Acriflavine.*
  - **Copper Sulphate:** *For footbaths.*
- **Antibiotics:**
  - **Excede:** *Specific for foot rot/lameness.*
  - **Terramycin LA:** *Buy bulk (500ml) to decant.*
  - **Mastijet (or other intramammary):** *For mastitis treatment*
  - **Cephudder & Rilexine DC:** *For emergency dry-off.*
- **Logistics:**
  - **Milk Replacer:** *Stockpile for all calves.*
  - **A4 Book:** *Crucial for recording treatments.*
  - **Stock Marker Crayons:** *To mark sick groups.*
  - **Spray Bottles & Meths.**

## THE "INFORCE 3" STRATEGY (EMERGENCY BUFFER)

*Use this only under specific conditions.*

- **The Concept: Inforce 3** is a nasal vaccine for respiratory viruses. It is **not** an FMD vaccine, but it triggers a rapid release of **Interferon** (a natural antiviral) in the cow's body.
- **The Goal:** To put the herd into a temporary "antiviral state" to dampen the impact of FMD.
- **The Limit:** The effect is very short-lived (**10–14 days max**). It provides **no** bacterial protection.

### ⚠ **CRITICAL WARNINGS (The Catch-22)**

1. **Do Not Use Too Early:** If used 3 weeks before the virus hits, the effect will have worn off. It is wasted money.
2. **Do Not Use If Already Infected:** If the virus is already in your herd (even silently), **DO NOT USE IT.**
  - *Why:* Nasal vaccination requires gripping every cow's nose. You will manually spread the virus from cow to cow on your gloves and equipment faster than the vaccine can work.

### **ACTION PLAN:**

- **Only use this** if you have confirmed intelligence that a direct neighbor is infected and you need a 10-day buffer **immediately**.
- **Discard this option** if you have any suspicion that FMD is already inside your fences. The handling risk is too high.

## THE "MASTITIS SHIELD" STRATEGY (Startvac / Enviracor J5)

Use this only during the "clean" preparation phase.

- **The Concept:** These are specific bacterial vaccines against Staph aureus, Coagulase-negative staphylococci (CNS), and E. coli.
- **The Goal:** FMD destroys teat ends, leaving them raw and open to bacteria. By boosting specific bacterial immunity before the physical damage occurs, you aim to reduce the severity of the secondary "Mastitis Wave" (Phase 3).
- **The Timing:** Must be administered **BEFORE** the virus infects the herd. Once the fever hits, it is too late to build this immunity.

### **ACTION PLAN:**

- **Consult your Vet:** Ask specifically for Startvac or Enviracor J5 if you are in a high-risk area but still negative.
- **The Logic:** You are not treating FMD; you are pre-arming the cow against the inevitable bacterial invasion that follows the virus.

## PART 2: THE EXECUTION (STEP-BY-STEP)

### PHASE 1: THE "ALARM" & THE "BLITZ" (Days 0–3)

*The virus is active before you see blisters. React to the data.*

#### Step 1: Monitor the "Early Warning"

- **Action:** Watch collar data 24/7.
- **The Sign:** A sharp drop in rumination or spike in inactivity often happens **12–24 hours** before fever/lesions.
- **Response:** Isolate these cows immediately.

#### Step 2: The "Freeze" & Calf Defense

- **Action:** Lock the gate. No movement in or out.
- **Calves: STOP** feeding herd milk immediately. Switch to **Milk Replacer**. Do not feed herd milk until 2 weeks after the *last* case.

#### Step 3: The "Day 1 Blitz" (Treat Everyone)

- **Action:** On the very first sign of the outbreak, treat the **entire herd**:
    1. **Anti-Inflammatory:** Inject every cow. **Repeat every 4 days.**
    2. **Eprecis or Ivermectin:** Inject every cow (viral load dampener).
    3. **Vit B Complex & Vit ADE:** Appetite, Energy & Immune System Boost.
    4. **Dry Off:** Immediately dry off any cow over **250 Days in Milk (DIM)** or within 2 (or even 3) months of drying. You cannot afford to milk "passengers".
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### PHASE 2: THE ACUTE BATTLE (Days 4–14)

*The "Pain Phase". Focus on speed and intake.*

#### Step 4: The Milking Order (Protect Speed & Tank)

- **The Logic:** You must separate the "Slow" cows and the "Risky" cows from the main herd to keep the operation moving.
- **The Strict Order:**
  1. **Healthy Cows:** Milk first in a disinfected parlour.
  2. **Sick Group A (FMD Symptoms):** Cows with blisters/drooling but *no* antibiotics. Milk is safe (pasteurized/powder) but infectious.
  3. **Sick Group B (Mastitis/Treated):** Cows on antibiotics (Rimadyl/Terramycin). Milk **LAST**. High risk to bulk tank.
  4. **Sick Group C (Badly Lame):** The "Casualty" string. Cows that struggle to walk. Milk them at the very end so they don't block the flow of the other groups.

### Step 5: The "Numb & Heal" Parlour Protocol

- *Print this for the parlour wall:*
  1. **SPRAY:** If cow kicks or has blisters, spray teats with **Lignocaine/Scripts Spray**. Wait 10 seconds.
  2. **PRE-DIP:** Clean with **Ecosure Oxysure** (Chlorine Dioxide).
  3. **MILK:** Attach cluster.
  4. **POST-DIP:** Dip with **Blue Dip (Glycerine)**.
  5. **HEAL:** Apply **Acriflavine/Glycerine mixed into Teat Cream** to blisters and sores.

### Step 6: The "Wet Feed" Protocol (Nutrition)

- **The Problem:** Cows with mouth sores starve because dry pellets hurt to chew.
  - **The Fix:** Create a soft "soup" or gruel in the feed troughs.
  - **The Recipe:** Make a soup, mix water and concentrate. Add molasses if available.
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## PHASE 3: THE RECOVERY (Days 15–30+)

### Step 7: Hoof & Lameness Care

- **The Sign:** "Creaking" hooves or sudden immobility (de-gloving/thimbling).
- **Action:** Inject **Excede** subcutaneously for foot rot.
- **Care:** Use footbaths (**Copper Sulphate**) daily. Apply **Acriflavine Paste** to lesions.

### Step 8: Managing the "Long Tail"

- **Production:** Expect recovery to **80-90%** of previous yield.
  - **Abortions:** Be prepared for an abortion storm (due to earlier fevers) 4-6 weeks post-outbreak.
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## PART 3: STAFF & LOGISTICS

### A. STAFFING SURVIVAL

- **Get Relief Staff:** You cannot run this with your normal team. The milking will take too long. Bring in extra hands immediately.
- **Feed Your Staff & Wash Their Clothes:** The dairy staff will be working 17-18 hour days. Provide meals for them & help them get through the day. They are your army; if they collapse, the farm collapses.

### B. THE MILKER'S CARD (Hang in Parlour)

#### PARLOUR RULES

1. **SHE KICKS?** -> **SPRAY** (Numbing Spray). Count to 10.
2. **CLEAN** -> **DIP**. Wipe.
3. **MILK** -> Attach Cluster.
4. **DONE?** -> **DIP** (Glycerine).
5. **SORES?** -> **RUB** (Cream + Acriflavine Mix).

### C. COST SAVER HACK

- **The Hack:** Instead of buying thousands of tubes, decant **Terramycin LA (5ml)** into disinfected, pre-used plastic intramammary tubes.
- **Mix:** Soak tubes in **Meths** before reuse.
- **Use:** Treat AM and PM.

### D. METABOLIC WARNING

- **Rimadyl/Antibiotics:** In FMD-compromised cows, metabolism slows significantly.
- **Rule:** Be aware that drugs will stay in the system much longer than usual. Withdrawal periods are unreliable during the outbreak.