Five Point Plan for Control of Digital Dermatitis

The purpose of the **Five Point Plan for Control of Digital Dermatitis (DD)** is to reduce the prevalence of DD on dairy farms. Implementation of the Plan should reduce the incidence over time. As DD is an infectious disease, with likely many sources of infection on the farm, the reduction in DD will occur over time. Successful outcome should be measured over a longer period of time (12 months). Within a 12-month period, seasonal changes are expected to impact prevalence. Frequent follow up is advised.

1. **External biosecurity to keep disease out of farm**

   **A) Avoid introduction by animals**
   1. Prefer closed farm – no buying or bringing in cattle and avoid contract heifer rearing
   2. If not possible, bring in cattle from farms with no DD history (based on regular hoof-trimming records)
   3. Control, and if necessary treat cows brought on farm and before introducing to the herd (including animals brought onto animal shows)
   4. No co-grazing with sheep, pigs, camels, elk, or goats

   **B) Avoid introduction by equipment and visitors**
   1. No equipment sharing
   2. Sanitation of used equipment entering farm
   3. Sanitation of hoof trimming tools brought on farm
   4. Restrict professional visitors and limit access to animal areas
   5. Prefer Boots and clothing dedicated to farm
   6. Clean, sanitise boots and equipment
Internal biosecurity to minimise infection pressure on cows

A Maximise cow comfort
1. Reduce exposure to manure
2. Maintain clean and dry alleyways and bedding, with particular attention to areas with frequent cow traffic (e.g. in front of concentrate feeder or water bowl, way to access to pasture …)
3. Use manure handling (scrapers, robots, equipment) that does not harm the cows
4. Minimise standing times (e.g. before milking parlour)
5. Design and maintenance of walkways: non pitted, not rough, not slippery, no holes
6. No over crowding
7. Optimise ventilation
8. Score foot hygiene of cows at a regular basis to detect lack of good foot environment
9. Conduct regular hoof trimming to maintain good hoof conformation

B Avoid transmission between cows
1. Segregate infected cows
2. Avoid moving equipment, manure, animals between groups
3. Clean and sanitise foot equipment between cows
4. Clean or change gloves after treatment of cows with serious infectious lesions
5. Use clean computer keyboard and tablet

Early identification, recording and treatment of clinical cases, in association with hoof care

A Observe lame cows and visible foot lesions daily

B Treat all detected lesions immediately. Establish treatment protocol with hoof care specialist (vet or hoof trimmer)
1. Clean feet before treating
2. Use products per label direction for treatment: regulatory approved or scientifically proved
3. Wrap recommended, applied without harming the cow and removed according to treatment protocol

C Register lame cows and foot lesions observed, as well as treatments

D Follow up on treatment outcome

E Perform regular functional hoof trimming and recording
1. Establish hoof trimming protocol with you hoof care specialist
2. Rely on qualified and competent hoof trimmer or vet or farmer
3. Recommend using ICAR Claw Health Atlas to record foot lesions
4. Keep track of animal groups at risk or with high prevalence

F Consider culling of chronically infected animals
4. Frequent foot disinfection to reduce new cases

A. Consider collective topical spray as preferred option for improved efficacy and in areas where hoof bathing is not possible (e.g. young stock, dry cows).

B. Take care to foot bath design
   1. Hoof bath length to allow for at least 2 dunks of rear feet (about 3 m long)
   2. Hoof bath position to optimize cow flow
   3. Hoof bath deep enough to cover dew claws
   4. Designed and placed so cows can’t walk with one foot out of the bath
   5. Easy fill, easy drain, easy clean
   6. Consider automated hoof bath to simplify replacement and cleaning

C. Consider foot cleaning before disinfection (but No cleaning baths without disinfection immediately after)

D. Provide a clean exit area after disinfection

E. Use proven effective disinfecting products per manufactures instructions

F. Environment, user and cow friendly disinfecting products.

G. Use clean hoof bath for hoof bath disinfection;

H. Accurately assess hoof bath volumes to achieve correct concentration

I. Replace hoof bath per label directions

J. Monitor hoof bath soiling with manure and adjust replacement frequency (replace hoof bath per label direction or not more than 200–250 passages on average)

K. Adjust level of disinfectant in foot bath: disinfectant should cover the feet, even of the last cow walking through
   1. Adjust frequency depending on challenge and infection level

5. Define and monitor targets

A. Review incidence and prevalence of DD lesions at a regular basis

B. Establish farm targets (Key Performance Indicators –KPI)
   Examples:
   - Painful DD cows per 100 cows
   - M2 prevalence per 100 cows
   - Cows with no DD lesions per 100 cows
   - Differentiate between not cured and new lesions
   - Cows treated for DD per 100 cows
   - % of cows lame from DD

C. Define changes in practices: SOPs

D. Follow up and adjust targets and control measures

E. Educate staff on hoof health, lesion identification and engage in target setting and achievement.

F. Benchmark KPI with other herds