
Maintaining Milk Quality in Spring 2015

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Why Control SCC NB for Industry

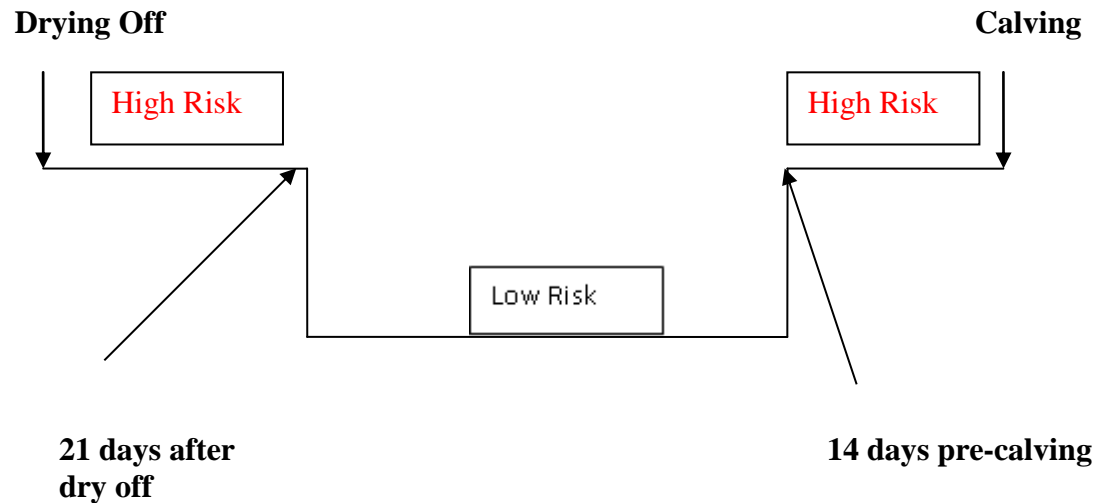
(Bernie O'Brien et al)

- High SCC detrimental to cheese yield and cheese making profitability
 - Monetary loss resulting from a 2 % reduction in cheese yield on increasing the SCC from 100×10^3 to 500×10^3 cells/mL would be ~€4000 *per day* for a Cheddar cheese plant processing 1 M litres milk *per day* (at a fresh curd value of ~€ 2.0/kg)
 - Milk quality will increasingly contribute to competitive advantage for the Irish dairy industry – MQ vital to successfully compete in international markets
 - Farmer Losses significant in non quota/ low milk price.
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Break it into Stages:

- Pre Dry Off
 - Drying Off
 - Post Drying Off
 - Calving Period
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Risk Periods of Dry period



Why we need to put such an emphasis on Dry Period

- 50 - 60% of all new infections caused by environmental pathogens occur during the dry period. (Bradley and Green, 2000)

 - Over 50% of clinical coliform mastitis events in the first 100 days in milk originated during the dry period.
(Bradley and Green, 2002)
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Adequate Information and Analysis

- Information and Designing a plan
 - Previous Dry Cow performance.
 - Significant number of calls due to poor dry cow procedure.
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Pre drying off, What Records required:

- Cell Check Farm Summary
 - Mastitis incidence Problem cow sheet.
 - Mastitis records.
 - Culture and Sensitivity, (properly carried out)
 - Environmental Vs Contagious Pathogens
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Mastitis Control: Dry Period/Calving

N/A

Note: Cows with first recording >60 days after calving are not included.

	First Test since calving	All calvings in current lactation
<p>New infection rate over the dry period</p> <p>Cows No. of cows calved that had a SCC <=200 in recording prior to calving (0) and >200 in the current recording (0).</p> <p>Heifers No. of heifers that had a SCC >200 in the current recording (0) as a percentage of all heifers calved (0).</p>	<p>N/A</p> <p><i>Target: Less than 10%</i></p> <p>N/A</p> <p><i>Target: Less than 15%</i></p>	<p>24% 20/82</p> <p><i>Target: Less than 10%</i></p> <p>34% 12/35</p> <p><i>Target: Less than 15%</i></p>
<p>Cure rate over the dry period No. of cows calved that had a SCC >200 in recording prior to calving (0) and <=200 in current recording (0)</p>	<p>N/A</p> <p><i>Target: Greater than 85%</i></p>	<p>27% 3/11</p> <p><i>Target: Greater than 85%</i></p>

For information on controlling somatic cell counts and clinical mastitis, check the Cell Check Farm Guidelines for Mastitis Control.

	<u>Farm Guideline No</u>
Somatic Cell Counts	11-12
Mastitis Control: During Lactation	5-15 & Management Note M
Treatments During Lactation	10 & Management Notes B & G
Mastitis Control: Calving/Dry Period	1-4 & 16-20



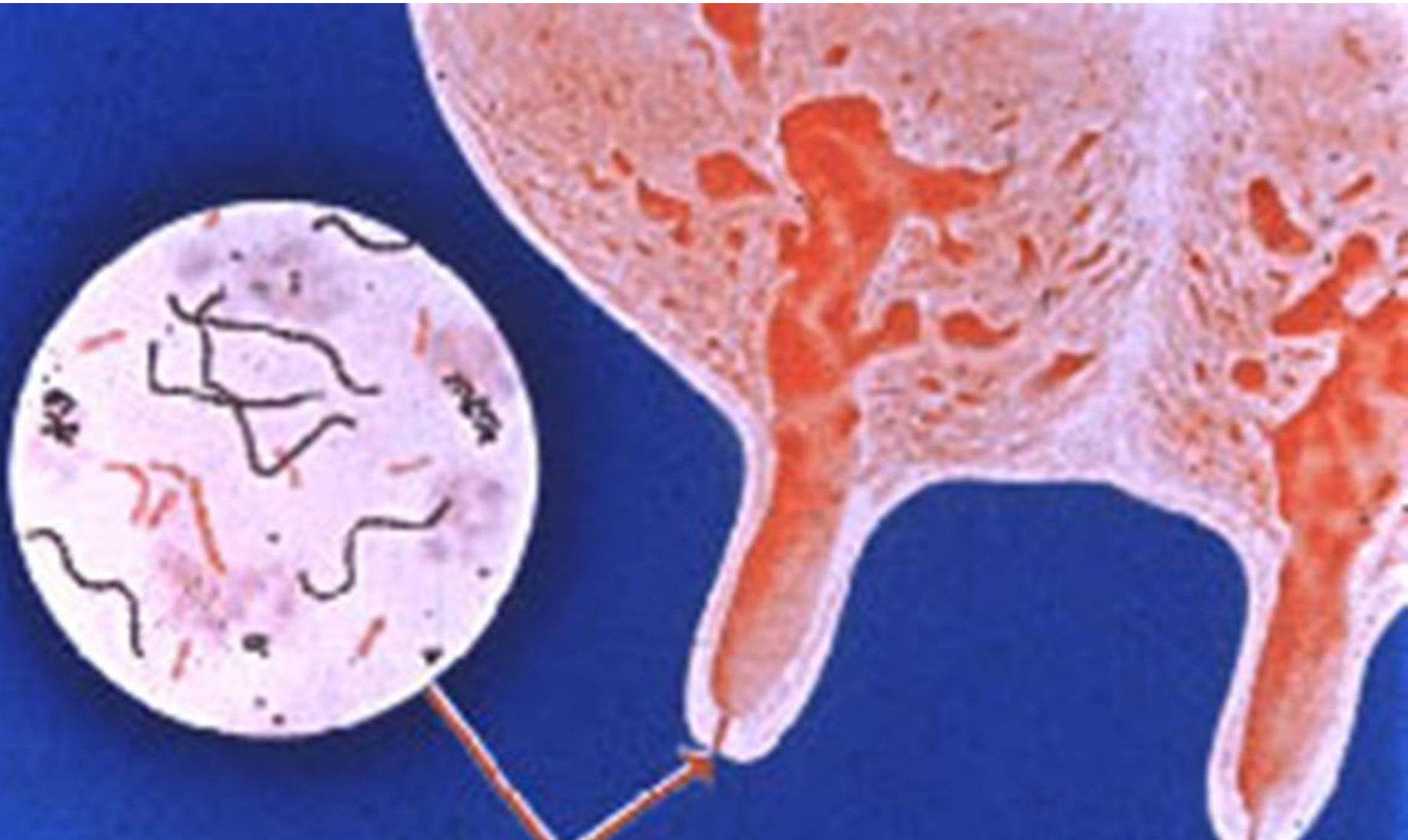
Farm Guidelines book is available from your Co-op and local Veterinary Practitioners.



Accurate Culling Policy Crucial

- Must cull chronic cows
 - 3 counts over 1 million.
 - Repeat cases of clinical mastitis.
 - Abnormal Quarter.
 - These cows will start well in recording.
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Bacteria Gain Entry Through The Teat Duct



Teat End Damage:

- Cracked teats are at 1.8 times higher risk for acquiring new infections during dry period.
(Dingwell et al., 2004)



Drying off, draft out cows, get fed, prepared and clean.

- Group sizes at drying off, significant issue with big herds. Hygiene compromised.
- One man to 10 cows applying dry cow and sealer (80 tubes administered)
- Must Clip Tails prior to dry off
- (ref Dr Gleeson re:Thermoduric)



Good lighting/Use a Head Torch



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Set Pattern (Video AHI)



Preparation Crucial (Hygiene)



Apply Dry Cow Work up into quarter



Dry Cow Antibiotic Therapy:

- Limitations:
 - – Will not prevent infections caused by resistant bacteria
 - – Will not prevent infections in late dry period
 - (Browning, 1990; Bradley and Green, 2001; Bradley and Green, 2004)
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Keratin Plug:

- A significant percentage of quarters fail to produce an adequate Keratin Plug during the dry period.
 - (Dingwell, 2003)
 - 7 days: 50% open
 - 42 days: 23% open
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Internal Teat Seal should be considered. Proper admin Crucial



Sealer

- Sit **bucket** of sealer into a bucket of warm water. Helps in cold weather.
 - Be careful not to mix up sealer and Dry antibiotic.
 - Residues effecting Cheese production.
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Teat Seal Should appear (X-RAY)
Teat Seal sitting as a plug



Proper Dipping post application:



Post Drying off

Clean Dry Bed or Leave out



Clean Dry Cubicles / Reseal Leaking
cows 5 to 8 days post dry off



Starting Next Season

- New Liners.
- Full Service
- Check Vacuum.
- Visibly clean.

TAKE YOUR TIME when milking.(FRS Milking Course)

Milking Regime/FRS Course

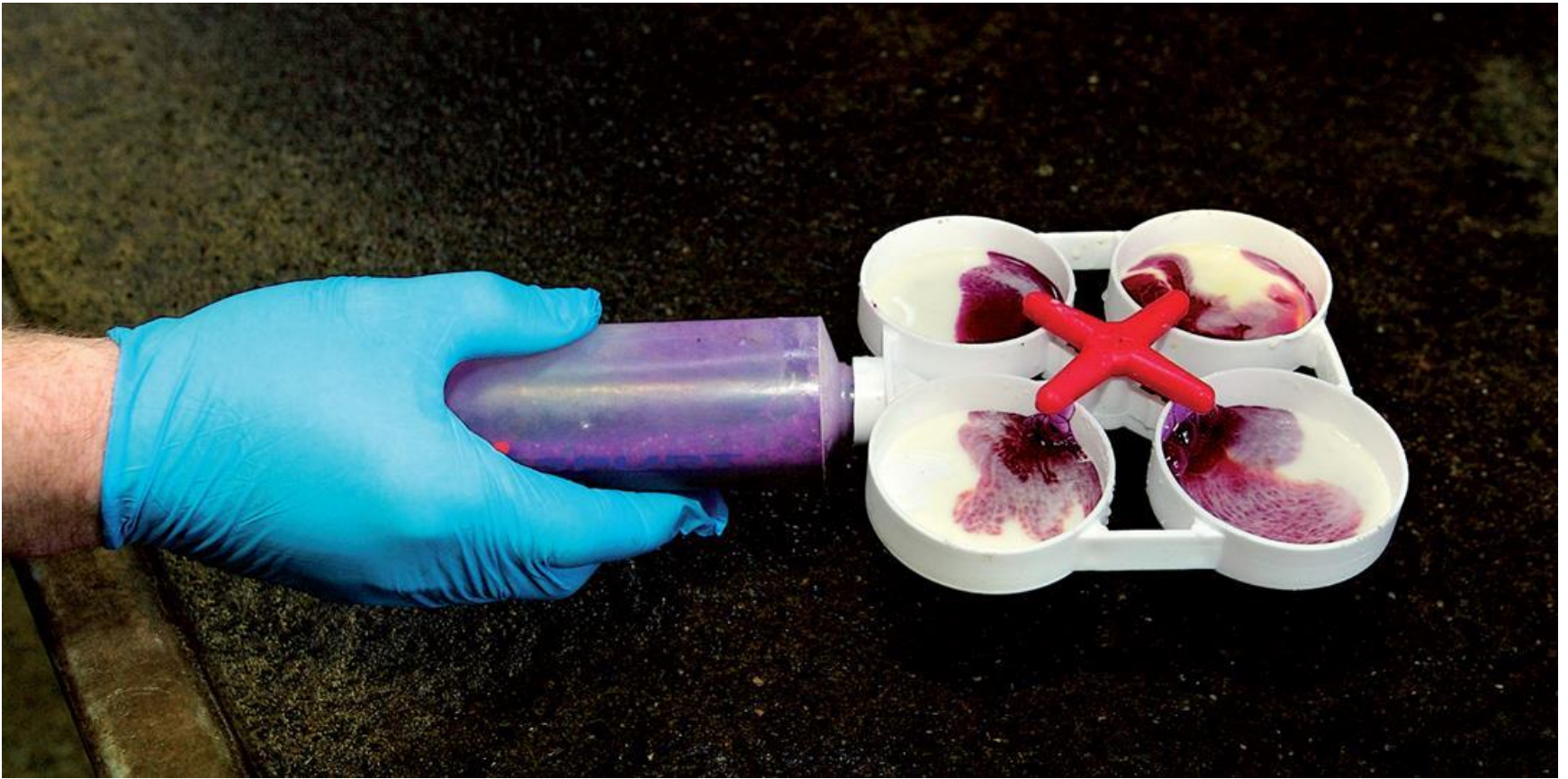
- Responsible for a 1/3 cases of SCC problems.
 - Designed by FRS/Teagasc
 - And AHI
 - New parlours with no ACR's
 - New labour and Existing.
 - Charge €250
 - 2 Day FETAC level 6
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Milk Recording Crucial

- If serious about your business must Milk record
- Early milk recording crucial, Learn how to interpret reports.
- Front load recordings e.g. Feb, April, July and Oct.
- CMT test all cows 2 to 3 days post calving.
- If a heifer or cow paddle tests high in all 4 quarters this is stress induced.

CMT KIT/Early Milk Recording.

Need to show farmers.



Cell Check Course/ AHI

- Milk Adviser, Vet, Milking Machine Technician and Agri Adviser.
 - Feed back is very positive.
 - Get farmers to attend. All farmers will benefit
 - E.g. CMT is demonstrated, liners, Dry cow etc.
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Good clean Calving Boxes



In calf Heifers preventing Mastitis (Significant problem)

- Heifers calving at start of season is a significant aid to prevent mastitis.
 - Specific pens for heifers, cleaned and disinfected after every calving/daily.
 - Disinfectant Lime products.
 - Teat spray heifers 5 to 7 days pre calving.
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- Prioritise Heifers with cubicles.

Keep collecting yards Clean



Hygiene is crucial:

Clean Clusters, Environment, Natural Light



Proper Preparation/Gloves



Cluster Dipping/Separate Group

An Infected cluster will pass infection to next 8 co



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- Thank You
 - Best of luck for the season ahead.
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