

# Holistic on farm approaches to a range of health and welfare issues

Neil Edwards, Crichel Farms Ltd.

Peter Plate, Endell Veterinary Group

# Crichel Farm

- Estate of 2200 ha, of which 600 are organic
- Two organic dairies of 200 cows each, identical setup
- Youngstock reared together
- Two calving blocks – spring and autumn
- One feeding group
  - Summer: grazing, TMR buffer and cake
  - Winter: TMR + cake
- TMR contains grass silage, clover silage, triticale, whey permeate, soya, straw
- Youngstock outwintered

# The Livestock Team

- Neil Edwards, farm manager
- Andrew Sanders, consulting manager
- George and Sarah Thorne, Richard and Claire Jones, stockpersons
- Peter Upshall, feeding
- Aaron Blachford, John Davies, calves and youngstock
- External advisors (agronomist, vet etc)

# Changes in the last few years

- Conversion of both dairies to organic system
- Three way crossing with Holstein, Swedish Red and Montbeliarde
- Simple modification to sand cubicles in 40 year old buildings
- Ongoing work on cowtracks and pasture management





# Health and Performance

4<sup>th</sup> Quarter 2012 Health and Fertility Figures for Crichel, White Farm (figures in brackets are for the current service period (November 2012))

	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Jun-12	Sep-12	Dec 12
Ca-1st service	81	85	75	88	80	77	76	77	83
Ca-conception	114	118	103	87	114	102	94	100	100
Repeat 18-25 days	39	40	45	45	42	45	45	47	47
Conception rate overall	43	44	46	47	48	52	53	54	55 (56)
Conception rate 1st ser	44	46	47	54	51	54	56	56	56 (57)
100 day in calf rate	37	42	53	56	45	50	47	50	50
200 day not in calf rate	40	30	24	24	32	27	28	23	29
Calving interval	435	423	420	430	432	423	422	400	394
Culling %	27	27	17	16	14	18	21	25	25
Age @ first calving	772	782	789	796	799	774	769	785	779
litres/cow/year	7796	7705	7681	7721	8010	8308	8429	8259	8139
mastitis %	66	51	46	37	35	31	30	28	29
SCC rolling	244	223	238	247	220	188	165	158	176

# Aspirations for the future

- Maintaining yield and fertility, increasing milk from forage
- Implementation of paddock grazing for youngstock
- Different arable rotations to establish winter forage crops earlier
- Increasing foot health by continuing laying cow tracks



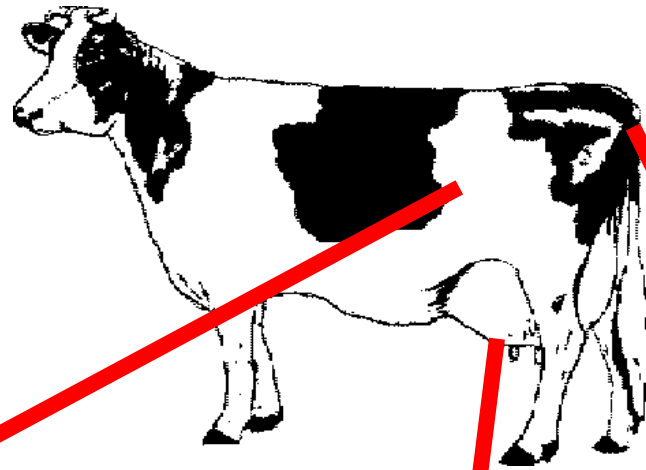
# Monitoring infectious diseases

- Johne's disease
  - repeat 30 cow screens via milk antibodies
    - probably free or very low level
- BVD
  - Bulk milk antibody and virus quarterly
  - Youngstock screens annually
    - Bulk milk levels indicate historic infection, negative youngstock screens indicate current freedom of active infection

# Importance of Johne's disease

- “organic standards and practices favour its spread”

# Transmission Routes



**20-40% infected in utero from clinical cases**

**9% from subclinicals**

**Milk and colostrum**

**Faeces contaminating calves/ udders**



Source: Peter Orpin, MyHealthyHerd.com

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# Example: Feeding pooled colostrum and waste milk to heifer calves



Source: Dick Sibley [myhealthyherd.com](http://myhealthyherd.com)

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# Pooling colostrum and using waste milk



# Importance of Johne's disease

- Predisposes to other diseases, welfare problem

## Comparison between 120 Johne's positive cows and 120 negative cows

- Give 4000kg less milk over lifetime
- Milk production reduces in second lactation
- 5X more likely to be lame
- 2X more likely to develop mastitis/ SCC problems
- 1.8 times more likely to suffer digestive/ respiratory disease

# Importance of Johne's disease

- Potentially zoonotic
  - Crohn's disease?
  - Others?



# Importance of BVD

- Immunesuppressive, predisposes to other diseases and increases drug usage

# Fourichon 2004:

## Compared situations

	Reference uninfected herd	Average case herd	Severe case herd
Abortion	3	6	9
AI return (total %)	51	53.2	55
Treatments of calves	10	30	40
Dead calves or heifers	9	21	29
Milk yield (kg/d)	23	22.4	21.3
Bulk milk SCC (1000 c/ml)	220	247	262
Clinical mastitis	44	52	57
Retained placenta	9	12	19



# Monitoring nutrition – options for poor forage quality/quantity

- Buy in organic forage – availability?
- Buy in conventional forage (derogation) – organic principles ?
- Reduce stock numbers
  - Economics
  - Closed herd policy
- Accept a temporary reduction in yield while maintaining welfare and fertility

# Lameness monitoring

- Records good but not sufficient
- Close observation and early intervention
- Herd mobility scoring?

# AssureWel Inspection







# AssureWel – Experience from a farmer's point of view

- Integral to normal SA inspection. Standardises the animal welfare part of inspection
- Most effective if herdsman is present, use as a management tool yourself.
- Whole herd inspected.
- Gives a representation of herd health- if it looks right it generally is!
- Ensures at least 30 min of the inspection day is not paper based!



# AssureWel result

- Mobility: 0/1: 19 of 20, 2: 1 of 20
- Body condition: 19 of 20 mod, 1 of 20 fat
- Hair loss, lesions, swellings:
  - 1 in 20 in hocks
  - About 50% mild hair loss on front knees, 10 % on shoulder/necks
- Dirtiness on hindquarter: 13 of 20
- Lying comfort: all seen lying well
- Broken tails: none seen
- Response to stockperson: sociable to indifferent

# Questions to discuss for groups

- Should mobility scoring, Johne's and BVD control be made compulsory for organic dairies?
- What is the preferred option to deal with forage shortages?