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## The cost of internal parasites in young cattle



## Diagnosing parasitism in cattle

- “The diagnosis of parasitic gastroenteritis is difficult, because of the lack of specificity of clinical signs, the generally poor correlation between faecal egg counts and worm counts and the impracticality of conducting other tests.”
- Anderson 1983



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## Laboratory findings

|         | PP    | PCV   | FWEC | Pepsin | GSHPx  | B12     | PACE | Fluke | Fluke ELISA |
|---------|-------|-------|------|--------|--------|---------|------|-------|-------------|
|         | g/L   | %     | epg  | u/L    | U/gHb  | pmol/L  |      | epg   | S/P         |
| normals | 70-85 | 30-40 |      | 0-5.0  | 40-300 | 130-500 |      |       |             |
| 21      | 47    | 19    | 660  | 23.5   | 12     | 288     | -ve  | 0     | <30         |
| 10      | 49    | 29    | 260  | 47.3   | 10     | 166     | -ve  | 0     | <30         |
| 13      | 67    | 35    | 660  | 22.3   | 13     | 184     | -ve  | 0     | 38          |
| 18      | 44    | 32    | 920  | 80.5   | 14     | 571     | -ve  | 0     | <30         |
| GT      | 34    | 10    | 880  | 16.9   | 25     | 213     | -ve  | 0     | <30         |
| Mean    | 48.2  | 25    | 676  | 38.1   | 14.8   | 284.4   |      | 0     |             |



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## Two stage 2008 trial

### Stage 1

- Screened 18 volunteer mobs of heifers - WEC from 2 pools of 5
- If > 100 epg
  - determined species
  - conducted a FECRT

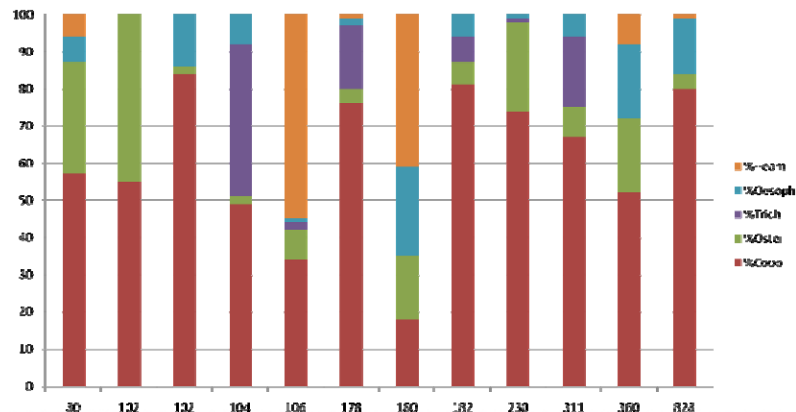


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## Weaning WEC and type

(60% Cooperia, 15% Ostertagia)



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## FECRT results

| Herd | Screen WEC | Control WEC | BZ   | LEV  | IVM full | IVM half |
|------|------------|-------------|------|------|----------|----------|
| 1    | 828        | 272         | 100% | 99%  | 96%      |          |
| 2    | 178        | 160         | 100% | 96%  | 98%      |          |
| 3    | 260        | 237         | 99%  | 97%  | 96%      |          |
| 4    | 180        | 72          | 93%  | 100% | 100%     |          |
| 5    | 270        | 72          | 100% | 98%  | 98%      | 88%      |
| 6    | 200        | 311         | 98%  | 72%  | 97%      | 91%      |



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## Stage 2 - What are worms in young cattle costing us?

- 6 co-operator herds
  - drench 20% of mob with Cydectin LA drench
  - repeat for almost perfect worm control
- Compare weight gains with remainder
  - 'Normal' management (no drenching in 1 herd)
- Schedule

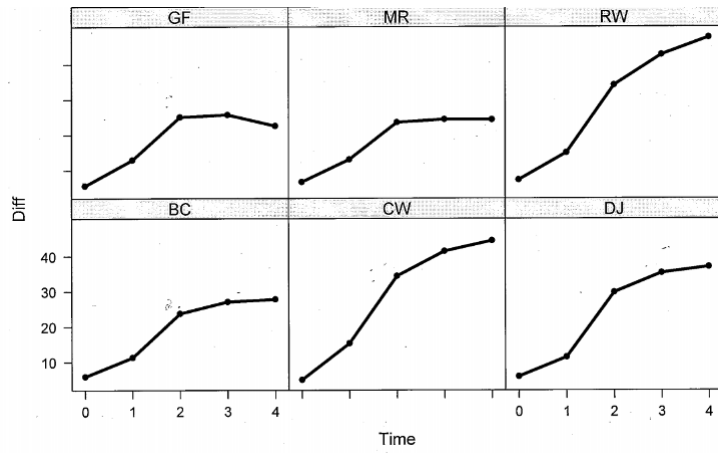
| Calve   | Wean    | 3 mth   | 6 mth   | 9 mth   | 12 mth  | 18 mth  |
|---------|---------|---------|---------|---------|---------|---------|
| Aug '07 | Mar '08 | Jun '08 | Sep '08 | Dec '09 | Mar '09 | Jun '09 |
| Age     | 8       | 11      | 14      | 17      | 20      | 23      |



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# What did worms cost?



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