

# Worm Efficacy Studies with Tison Attack

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For registration a series of studies were undertaken to demonstrate the efficacy of Tison Attack against Gastrointestinal (GI) parasites in sheep. These studies included Total Worm Count (TWC) Studies and Field Faecal Egg Count (FEC) Studies against field strains of GI parasites.

### Taumarunui 2021 Off Shears TWC Study

- Six animals per treatment group
- Application off-shears
- Slaughter at day 8

The control group had a mixed infection of all the major GI parasites of sheep.

Mean TWC's in the control animals:

|                                       | Total Worm Count |
|---------------------------------------|------------------|
| <i>Haemonchus contortus</i>           | 383              |
| <i>Teladorsagia</i> spp.              | 2,443            |
| <i>Trichostrongylus axei</i>          | 933              |
| <i>Trichostrongylus vitrinus</i>      | 1,383            |
| <i>Trichostrongylus colubriformis</i> | 3,226            |
| <i>Nematodirus</i> spp.               | 108              |
| <i>Cooperia curtecei</i>              | 5,892            |

Efficacy was excellent for all major species of GI parasites in sheep.

Arithmetic mean efficacy:

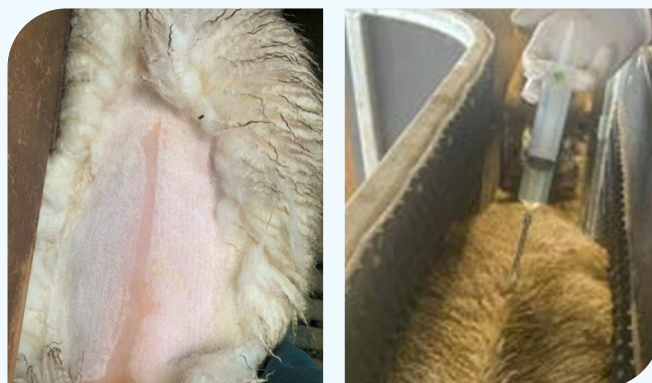
| Abomasum      |                 |               | Small Intestine |               |               |
|---------------|-----------------|---------------|-----------------|---------------|---------------|
| <i>H. con</i> | <i>Tel. cir</i> | <i>T. axe</i> | <i>T. vit</i>   | <i>T. col</i> | <i>C. cur</i> |
| 100%          | 98.60%          | 100%          | 100%            | 95.60%        | 100%          |

**These two studies demonstrated the efficacy of Tison Attack against heavy mixed infestation of GI parasites in sheep treated off-shears and with long wool.**

### Feilding 2021 Long Wool TWC Study

- Six Animals per treatment group
- Mean wool length 96mm
- Slaughter at day 8

The control group had mixed infections of all major GI parasites of the stomach, small and large intestines.



Application off shears and in long wool sheep.

Mean TWC's in the control animals:

|                                       | Total Worm Count |
|---------------------------------------|------------------|
| <i>Haemonchus contortus</i>           | 1,167            |
| <i>Teladorsagia circumcincta</i>      | 3,700            |
| <i>Trichostrongylus axei</i>          | 1,083            |
| <i>Trichostrongylus vitrinus</i>      | 11,808           |
| <i>Trichostrongylus colubriformis</i> | 2,595            |
| <i>Nematodirus spathiger</i>          | 7,559            |
| <i>Nematodirus filicollis</i>         | 483              |
| <i>Cooperia curtecei</i>              | 3,969            |
| <i>Cooperia oncophora</i>             | 40               |
| <i>Oesophagostomum</i> spp.           | 57               |
| <i>Trichuris ovis</i>                 | 88               |

Efficacy was excellent for all major species of GI parasites in sheep.

Arithmetic mean efficacy:

| Abomasum      |                 |               | Small Intestine |               |              |               |               |               | Large Intestine |               |
|---------------|-----------------|---------------|-----------------|---------------|--------------|---------------|---------------|---------------|-----------------|---------------|
| <i>H. con</i> | <i>Tel. cir</i> | <i>T. axe</i> | <i>T. vit</i>   | <i>T. col</i> | <i>N.spa</i> | <i>N. fil</i> | <i>C. cur</i> | <i>C. onc</i> | <i>Oes. spp</i> | <i>T. ovi</i> |
| 100           | 100             | 100           | 100             | 98.9          | 99.6         | 100           | 99.8          | 100           | 100             | 96.1          |

**References:** Daly S, Spot-on drenches in sheep for control of gastrointestinal parasites and lice, *Proceedings of the Sheep and Beef Cattle Veterinarians and the Deer Veterinarians Branches of the NZVA*, pp 7-18, Jul 2023. Daly S, A topical drench containing abamectin and levamisole for control of gastrointestinal parasites and lice, *Proceedings of the Sheep and Beef Cattle Veterinarians and the Deer Veterinarians Branches of the NZVA*, pp 1-23, Jun 2025.

# Tison Attack: FEC Field Studies

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For registration a series of studies were carried out to demonstrate the efficacy of Tison Attack against Gastrointestinal (GI) parasites in sheep. These studies included field studies using Fecal Egg Count Reduction (FECR) in crossbred and merino sheep against field strains of GI parasites.

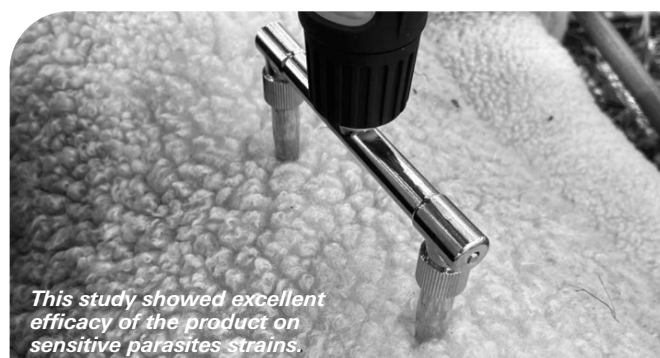
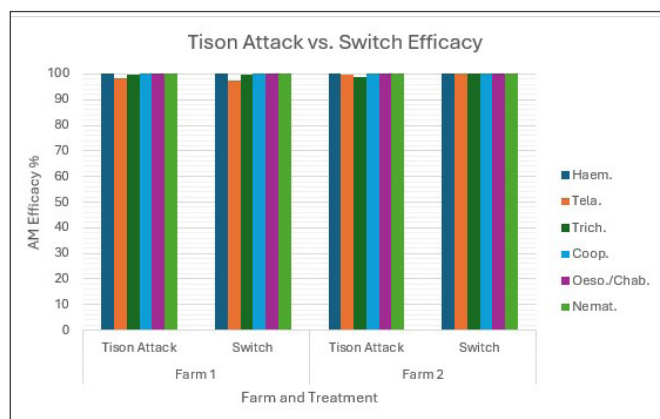
## Taumarunui FECR Field Study 2021

- Four farms
- The study was carried out between February and July across the farms on lambs born the previous spring.
- Long and short wool
- Comparison with a positive control oral drench containing abamectin and levamisole included. (Switch, de-registered).

| Farm | Breed                     | Shorn/Unshorn   |
|------|---------------------------|-----------------|
| 1    | Romney                    | Unshorn         |
| 2    | East Friesian x Coopworth | Shorn on Day -7 |

The farms had mixed infections of field strains of parasites including *Haemonchus*, *Teladorsagia*, *Trichostrongylus*, *Cooperia*, *Nematodirus* and *Oesophagostomum/Chabertia* species.

**Efficacy by species in comparison with the positive control product Switch:**



## Merino Off-Shears FECR Field Study 2022

- Six farms across the Maniototo, Waitaki Valley and Waimate areas
- Five farms treated on the day of shearing, one farm treated three days post shearing
- FECs taken pre-treatment and 13 or 14 days later
- Comparison with a positive control oral drench and Tison (a similar topical drench containing eprinomectin. ACVM No. A11955, Inovata Ltd).



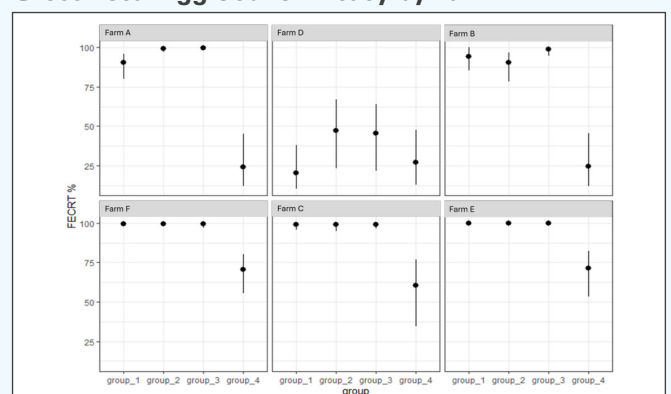
A merino hogget treated off shears and study farm locations.



An example of the hoggets used in the study.

**Efficacy was excellent across all farms except for one farm with severe double drench resistance (Farm D).**

## Gross Fecal Egg Count Efficacy by Farm:



**References:** Daly S, Spot-on drenches in sheep for control of gastrointestinal parasites and lice, *Proceedings of the Sheep and Beef Cattle Veterinarians and the Deer Veterinarians Branches of the NZVA*, pp 7-18, Jul 2023. Daly S, A topical drench containing abamectin and levamisole for control of gastrointestinal parasites and lice, *Proceedings of the Sheep and Beef Cattle Veterinarians and the Deer Veterinarians Branches of the NZVA*, pp 1-23, Jun 2025.