

meatup FORUM

For the latest in red meat R&D

Managing parasite burdens in challenging environments

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Local Land Services



Health challenges in northern NSW

Nutrition

Worms

Liver fluke

Buffalo fly

Ticks

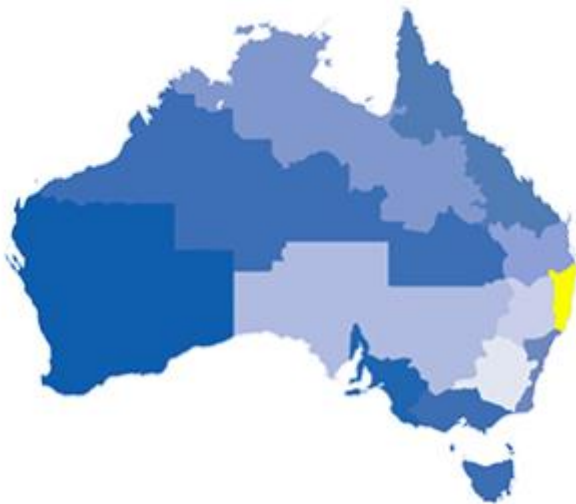
Worms

- Mainly affect young, weaned cattle
- Adults develop resistance
- Suckling calves – often not significant burdens until weaning

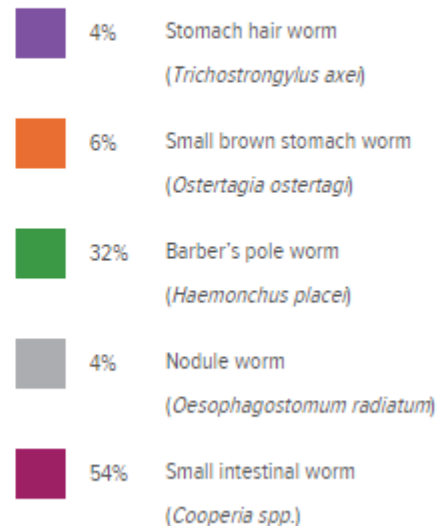
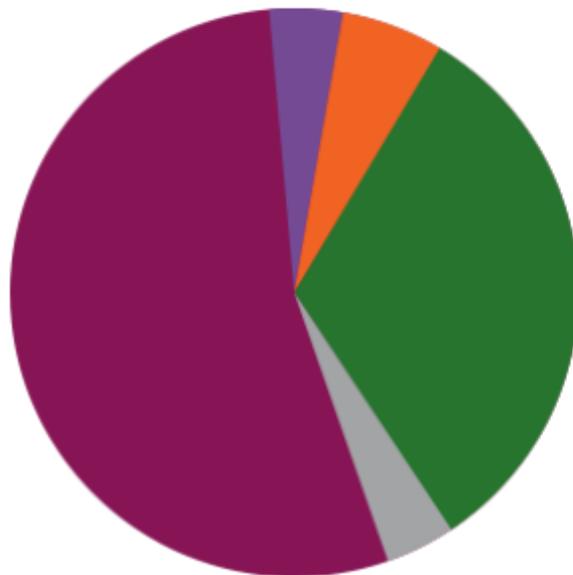


Worms

NORTH COAST NSW



WORM SPECIES (AS A % OF TOTAL WORM EGG COUNT)



Worms

- Haemonchus (Barber's Pole)
 - common, pathogenic
 - blood & protein loss
 - Weakness, weight loss, bottle jaw
- Cooperia (Small intestinal worm)
 - common, not so pathogenic
- Ostertagia (Brown stomach worm)
 - common
 - slows weight gain, diarrhoea
 - Type 1 - weaners; Type 2 - yearlings/adults



Worms – treatment (drench)

- 3 groups –
 - Levamisole (clear, oral)
 - resistance in Ostertagia (BSW), good for other round worms
 - low safety margin
 - short acting
 - BZs (white, oral)
 - resistance in Ostertagia, good for other round worms
 - safe
 - short acting
 - Mectins/ML (pour on, injectable, oral)
 - resistance in Cooperia & Haemonchus; good for Ostertagia
 - longer acting – but reducing as resistance increases



Worms – treatment (drench)

When to treat?

- Weaning
- Use faecal egg counts to guide decisions
- Timed strategic approach – 3-4 per year for young stock
 - Less if dry/drought
 - Aim is to reduce larval contamination of pasture
- Adults don't need routine drenching for worms



Worms – North Coast Drench Trials – Duck Creek 2020

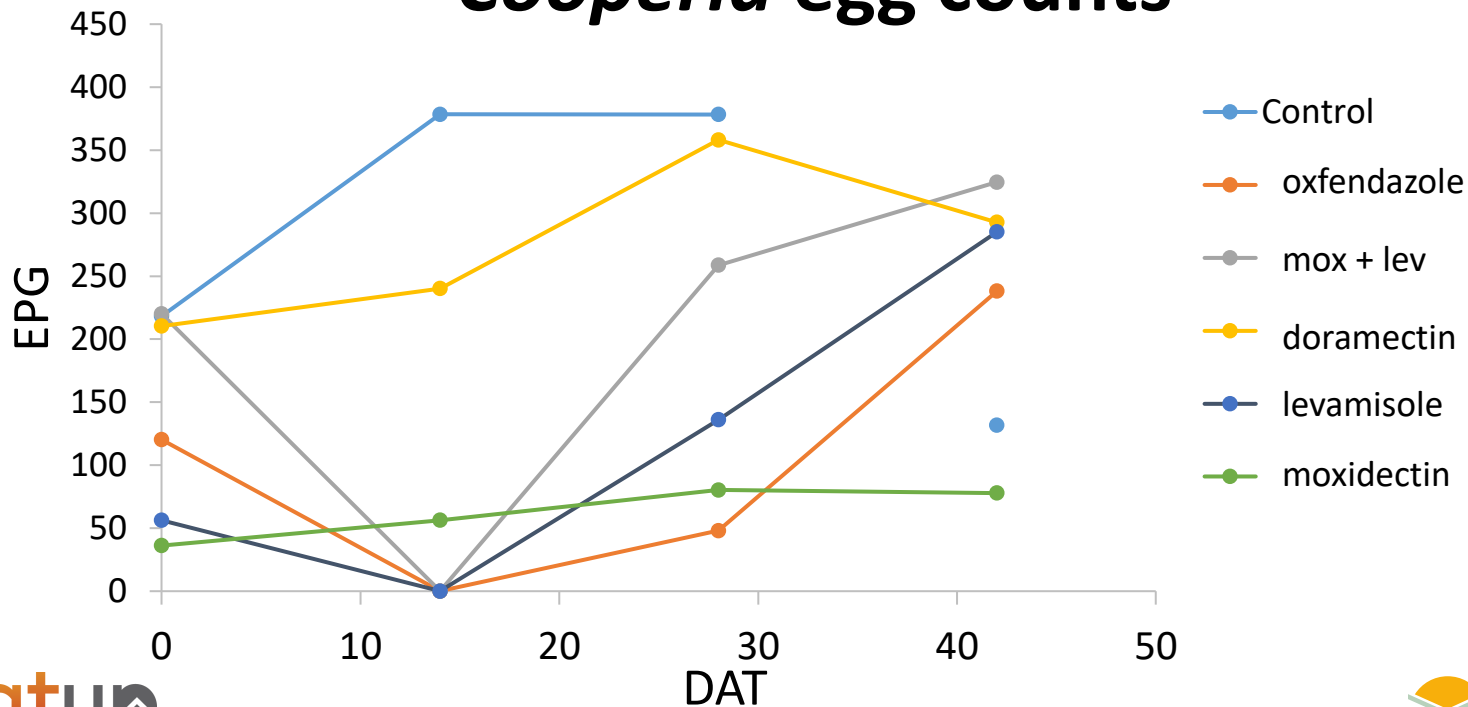
DPI/LLS/Virbac

- 240 commercial steers
- 300kg weaners
- 6 groups – 3 pour-on ML, 2 oral, 1 control
- 6 weights and 5 WEC over 90 days

Worms – North Coast Drench Trials – Duck Creek 2020

DPI/LLS/Virbac

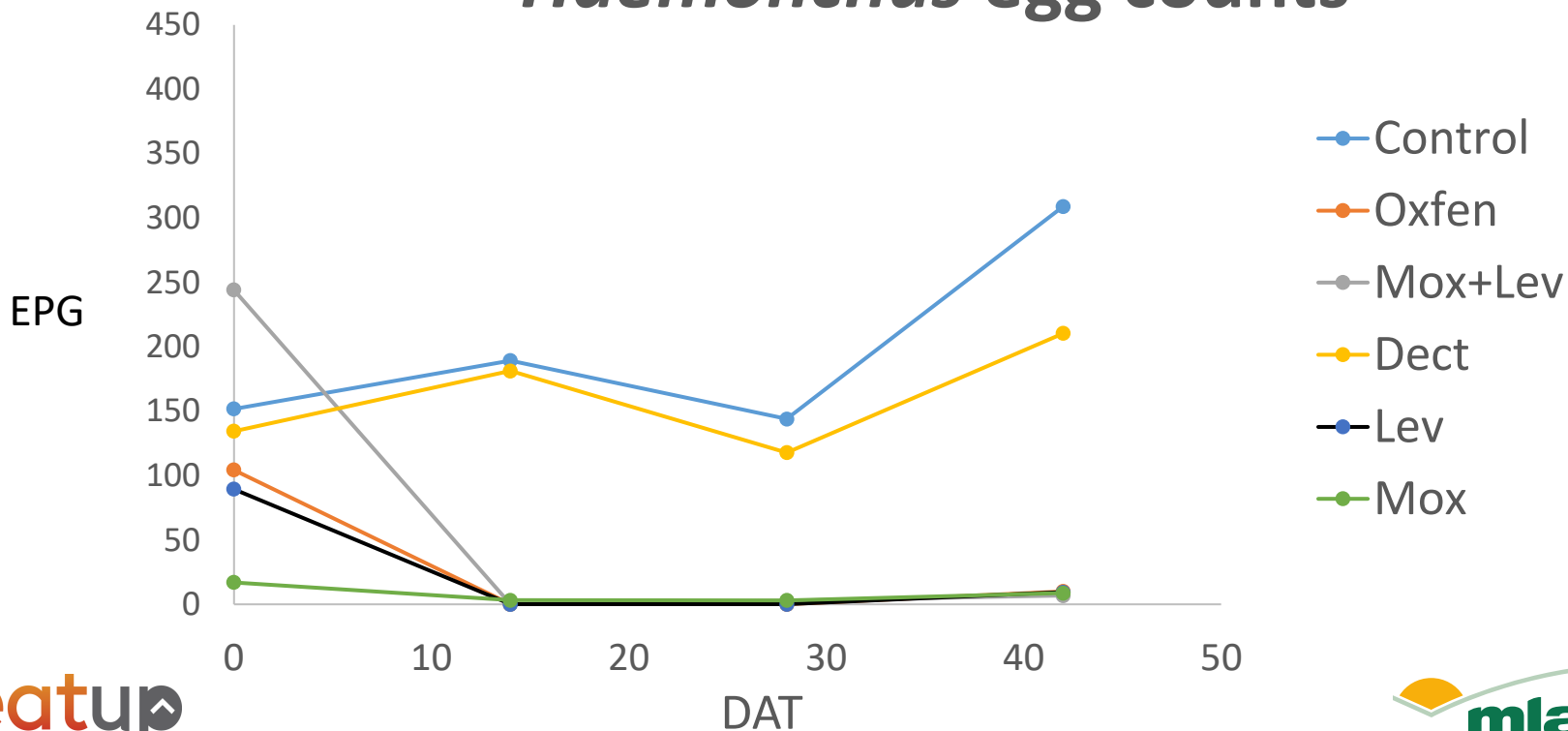
Cooperia egg counts



Worms – North Coast Drench Trials – Duck Creek 2020

DPI/LLS/Virbac

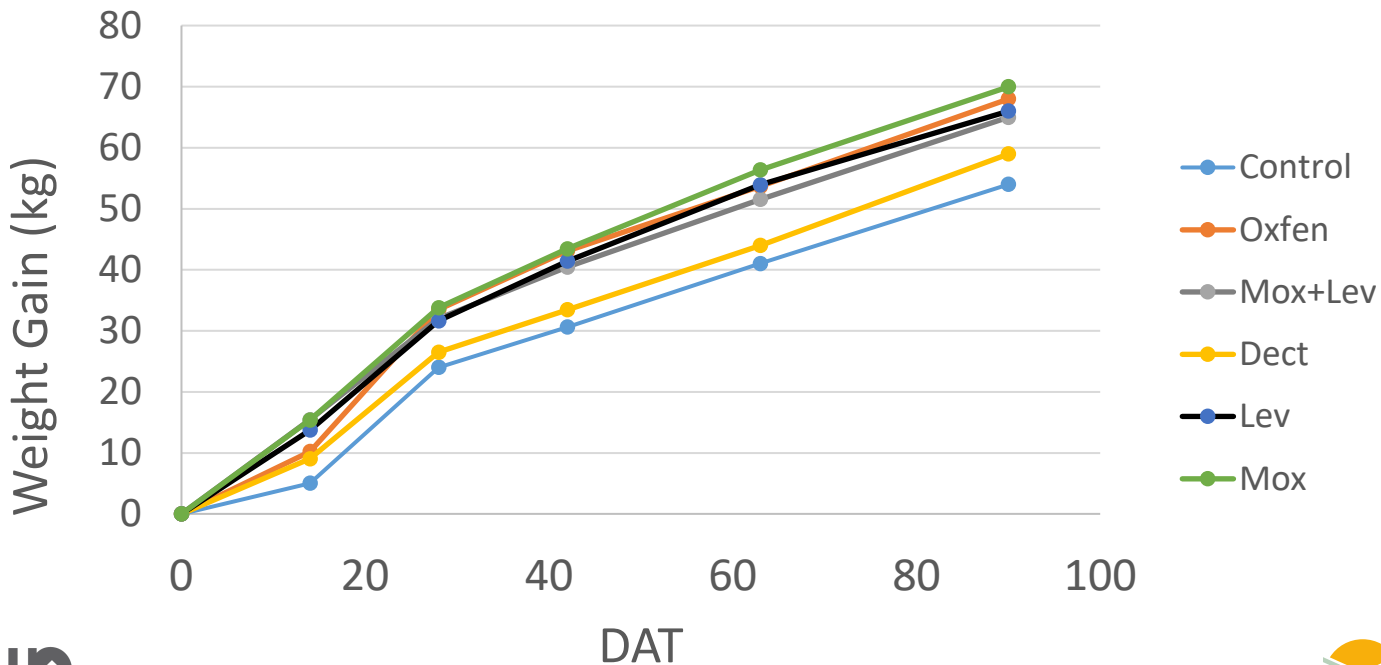
Haemonchus egg counts



Worms – North Coast Drench Trials – Duck Creek 2020

DPI/LLS/Virbac

Cumulative Steer weight gain



Worms – North Coast Drench Trials – Pearces Ck 2021

DPI/LLS/Virbac

- 280 commercial steers,
275kg April
- Co-mingled 8-12 weeks prior
to trial
- 7 groups – 6 injectable ML,
1 control
- 30 tested for fluke – mostly
neg or low

Worms – North Coast Drench Trials – Pearces Ck 2021

DPI/LLS/Virbac

D14	Nitromec	Cyductin LA	Cyductin	Virbamec Plus	Dectomax	Bomectin	Control
%WEC reduction	85	76	81	46	43	27	24
<i>Haemonchus</i> (BPW) (%)	0	0	2	10	82	65	28
<i>Cooperia</i> (%)	97	88	97	90	4	34	67

Worms – North Coast Drench Trials – Pearces Ck 2022

DPI/LLS/Virbac

400 heifers from 8 PICS sourced
Feb – March 2022

2 worm treatments

+/- injectable trace minerals

Worms – North Coast Drench Trials – Pearces Ck 2022

DPI/LLS/Virbac

PIC	Bomectin	CYDLA + OXfen
1	73	97
2	47	96
3	74	100
4	68	99
5	25	100
6	87	98
7	46	100
8	27	100
AVERAGE	59	99

Worms

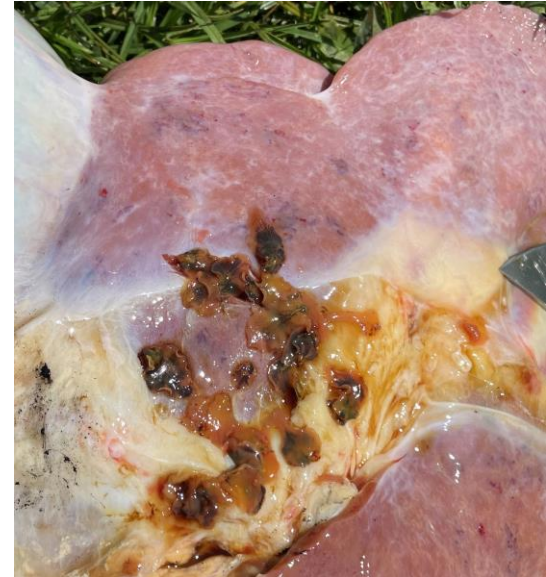
- Uncontrolled worms cause weight loss
- ML resistant worms widespread
- Incorporate use of old/oral products especially on weaners, yearlings
- Seek advice as every property could be different
 - test for drench resistance

Worms

- Strategies to minimise resistance
 - Use combination drenches (ML + white/clear drench)
 - Drench as infrequently as possible – use WECs
 - Minimise use of long-acting drenches
 - Don't under-dose
 - Don't routinely drench adults
 - Create 'safe' pastures for youngsters
 - Don't overstock or over graze
 - Quarantine drench introductions
 - Minimise use of MLs for external parasites

Liver fluke

- Grazing in wet areas – snail-associated
- Larvae migrate through liver -> adults in bile ducts
- Anaemia, protein loss, liver damage
 - weakness, ill-thrift, bottle jaw
- Weaners, yearlings and adults affected
- Test to see if have it – may save money on drench
- Treatment
 - Late autumn – immature & mature (eg Triclabendazole, Nitroxylin)
 - Late winter/early spring – matures only (eg Clorsulon, Oxyclozanide)
 - (+/- Dec in very high risk properties)



Buffalo fly



- Tolerate low numbers – Treat >200 flies
- Chemicals – SPs, OPs, MLs, combinations
- Tags (LA), sprays/dips, pour-ons, back rubbers
- Monitor efficacy and change if not working
 - SP resistance
- Rotate chemical groups to minimise resistance
- Coverage over fly season – pour on/spray (SA), tag (LA), pour on/spray (SA)
- Remove tags at recommended times to minimise resistance
- Python (SP) tags unavailable
- New combo ML/SP tag (Y-tex Tri-Zap) available under permit – limited release



Buffalo fly

- Non-chemical options
 - Tunnel traps
 - Dung beetles
 - Cull hypersensitive animals



Cattle ticks

- Cattle tick incursions
- Be careful with Qld introductions – quarantine & monitor
- Risk of tick fever – rapidly fatal disease
- Report cattle ticks – notifiable in NSW
- Treatment will be advised by tick program staff

Paralysis ticks

- Problem in young calves
- Carried by bandicoots and other native animals
- 3 host tick – difficult to kill – short attachment time
- Treatment??
 - Sprays/dips short acting
 - Pour ons/injectables often short acting too
 - Cydectin LA? Not for use in animals under 100kg (toxicity?)
 - Python ear tags – not available
 - Don't use turps – against LPA
- Calve earlier?, Non-scrubby (clean) paddocks?, 'Mop up' ticks?

Program

- Make management calendar with key dates and overlay treatment times to suit
- Examples in:
 - Beef Cattle Health and Husbandry book
 - MLA Cattle Parasite Atlas

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bulls	Buffalo fly treatment			Drench: Fluke Remove buffalo fly tag		Prepare for bull purchase: Review EBV's		Pre-join Physical assessment for all existing bulls	Vaccinate: 7-in-1, 3_Day, Pestivirus, Vibrio boosters.	Bulls put with cows/heifers		Remove bulls for cows/heifers Monitor for Buffalo fly

Calendar for worm and fluke control

Spring calving herds

Age group	Mar–May	Jul	Sep	Dec
Weaners	✓ Weaning	✓	(✓) May be required if previous drench was not an ML	✓
Yearlings/1st calvers	✓	(✓) Pre-calving		(✓)
2nd calvers		(✓) Pre-calving		
Adult cows	Adult cattle have strong resistance to <i>Ostertagia</i> – individual cows showing signs of internal parasitism (diarrhoea, weight loss and ill thrift) should be treated			
Bulls				✓Pre-joining
Liver fluke control				
All weaned cattle	Fi		F + SF	(Fi)
Buffalo fly control				
	Start of fly season		Jan	Apr
All cattle	OP (if buffalo flies are a problem prior to January)		Ear tags for buffalo fly when fly numbers exceed acceptable levels (use OP tags for 2 years, then SP tags for 1 year)	If flies continue to be a problem after tags are removed use sprays (OP spray after SP tags and SP spray after OP tags)

- ✓ Strategic worm treatment given each year
- (✓) Not a routine treatment. Indicators for treatment include scouring, sudden loss of condition and a condition score of 2 or less, especially if feed availability is less than 1,000kg DM/ha. Treatment will be more effective if combined with a move to 'low-risk' pastures, especially for young stock.
- Fi Both adult and immature fluke present – select a drench that kills all fluke stages

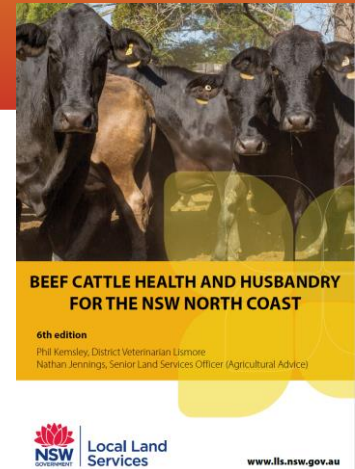
- (Fi) Adult and immature fluke present. This drench may not be needed on properties with a low fluke risk.
- F Select a drench to kill adult fluke.
- SF Stomach fluke – consult a veterinarian for treatment options
- OP Organophosphate based product
- SP Synthetic pyrethrin based product
- ML Macrocytic lactone

Take home messages

- Don't rely on MLs for worm control – much resistance
- Old white and clear drenches still work
- Use combinations of actives to PREVENT resistance or if have resistance
- Use WEC to assess need to drench or check whether drench has worked

Tools and resources

- Beef cattle health and husbandry book (LLS)



- MLA cattle parasite atlas



- Paraboss website: paraboss.com.au



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