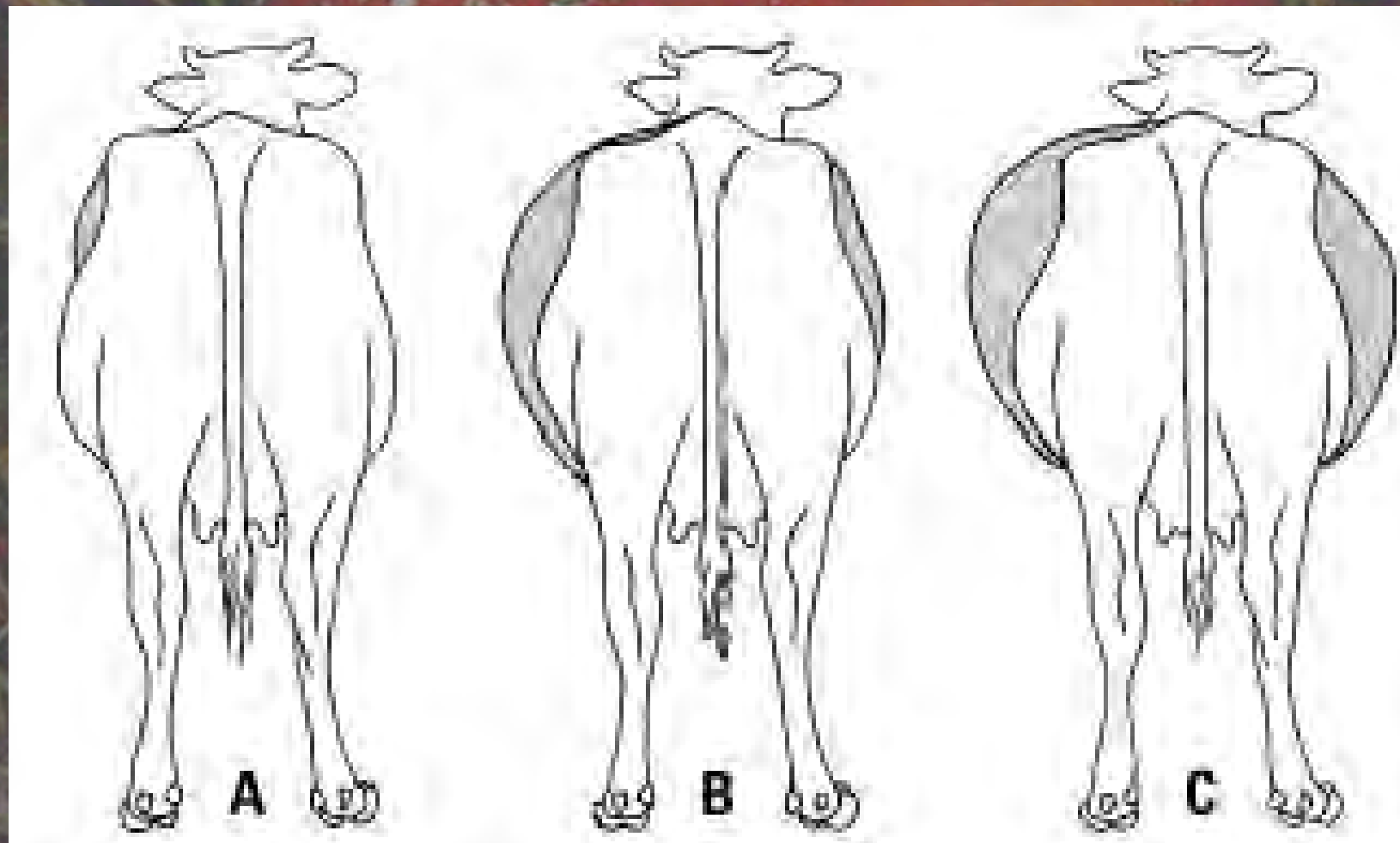


BLOAT



BLOAT



bloat

- frothy bloat (primary)
- free gas bloat (secondary)
 - failure to eructate
 - injury?
 - hypocalcaemia



incidence

- **common in dairy cows**
- **rarely in sheep**
- **abomasal bloat in lambs**

aetiology

- **plant factors**
 - rapidly grown clover (alfalfa worst) & grass
 - low tannin levels
- **animal factors**
 - ruminal microflora
 - salivary composition & volume
- **environmental factors**
 - warm wet weather

pathophysiology

- rapid fermentation of clover
- proteins form stable foam
- animal unable to eructate
- ruminal distension
- dyspnoea, reduced cardiac output
- death

treatment

- in emergency
 - pass stomach tube
 - insert large cannula
 - rumenotomy



A large, red mushroom with white spots on its cap, growing on a bed of dry grass. The mushroom is the central focus of the image, with its stem partially visible below the cap. The background is a dense layer of dry, yellowish-brown grass.

treatment

- oils
- detergents
- household remedies for first aid

OILS

- edible oils
 - may flavour milk
 - softer milk fat
- liquid paraffin
 - absorbs fat soluble vitamins
- oils are not very effective for treatment



detergents

- **non-ionic surfactants**
 - polyethoxylated alcohols
 - poloxalene
- **ionic detergents**
 - toxic
 - rarely used
 - dioctyl sodium sulphosuccinate



A photograph of a red mushroom with white spots, likely a fly agaric, growing on a bed of pine needles. The mushroom is the central focus, with its bright red cap and white spots contrasting against the dry, brownish-green needles. The text 'side effects' is overlaid in yellow on the upper part of the mushroom's cap.

side effects

- diarrhoea
- excitation

first aid

- milk 1L
- cream 250mL
- vegetable oil 100 – 500mL
- spirits ?



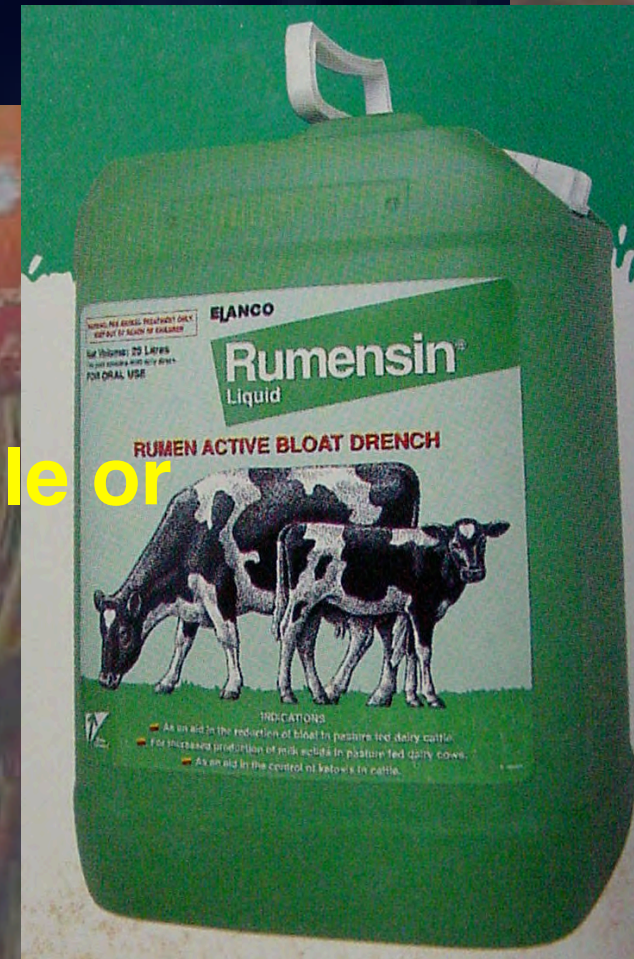
prevention

- **avoid dangerous pastures**
- **feed hay before turning cows out**
- **spray pastures with oils**
- **detergents in drinking water**
- **drench daily with polyethoxylated alcohol**
- **drench at milking with oils**
- **paint detergents on cows**
- **antibiotics**
- **breed bloat resistant cattle**

antibiotics

- Monensin (Rumensin)
 - ionophore antibiotic
 - alters ruminal flora
 - takes several days to work
 - available as a slow release capsule or drench
 - kills horses and dogs

Rumensin



antibiotics

- **grain fed cattle**
 - may be free gas or frothy bloat
 - wide variety of “production enhancer” antibiotics used
 - most kill *Lactobacilli*

What would you do?



bloat

- **prevention is better than cure**
- **in emergency relieve ruminal tympany**
- try stomach tube first
- **treatment – polyethoxylated alcohols (PA)- check rest of herd**
- **prevention – good husbandry, PAs or monensin**