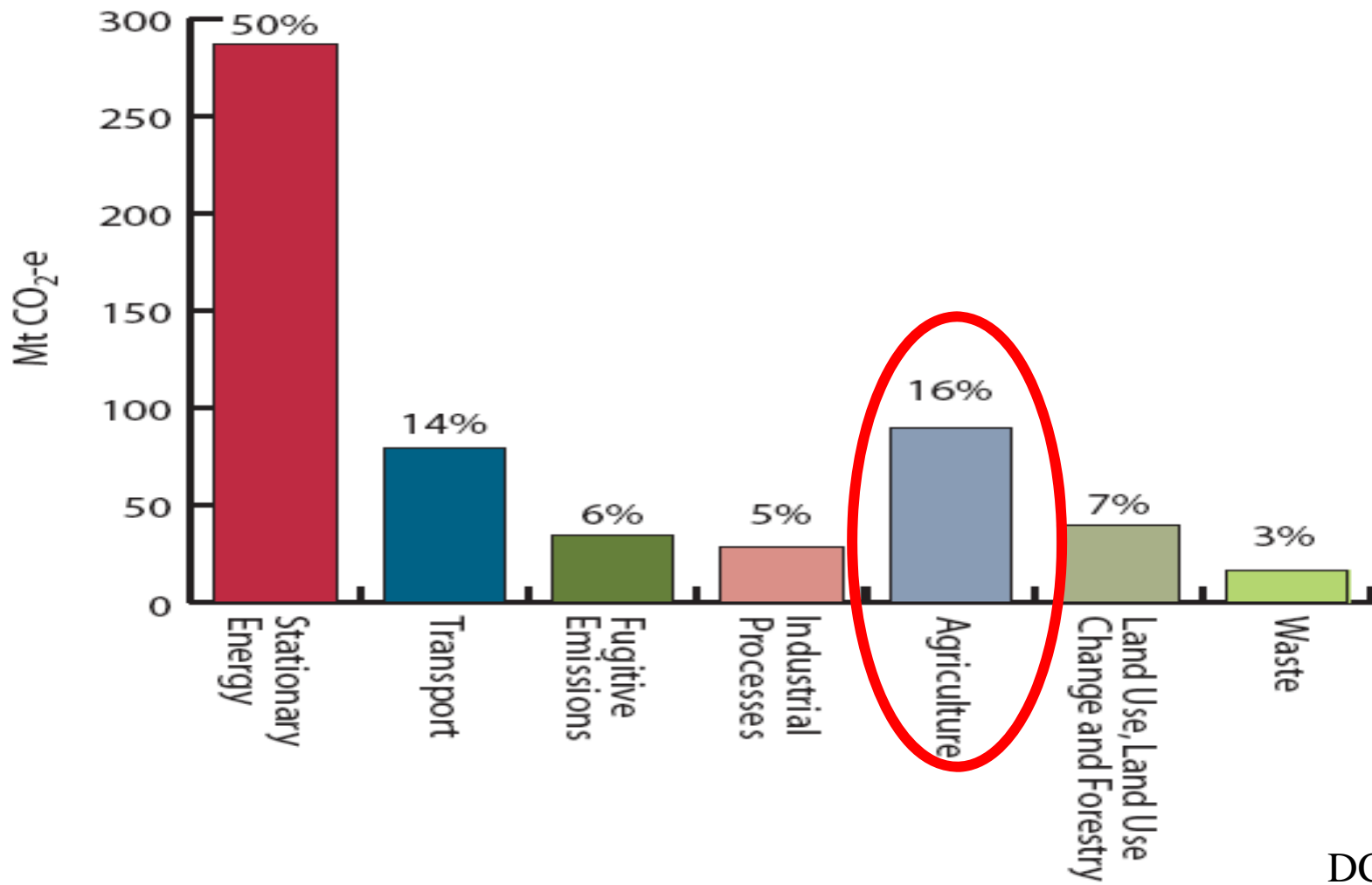
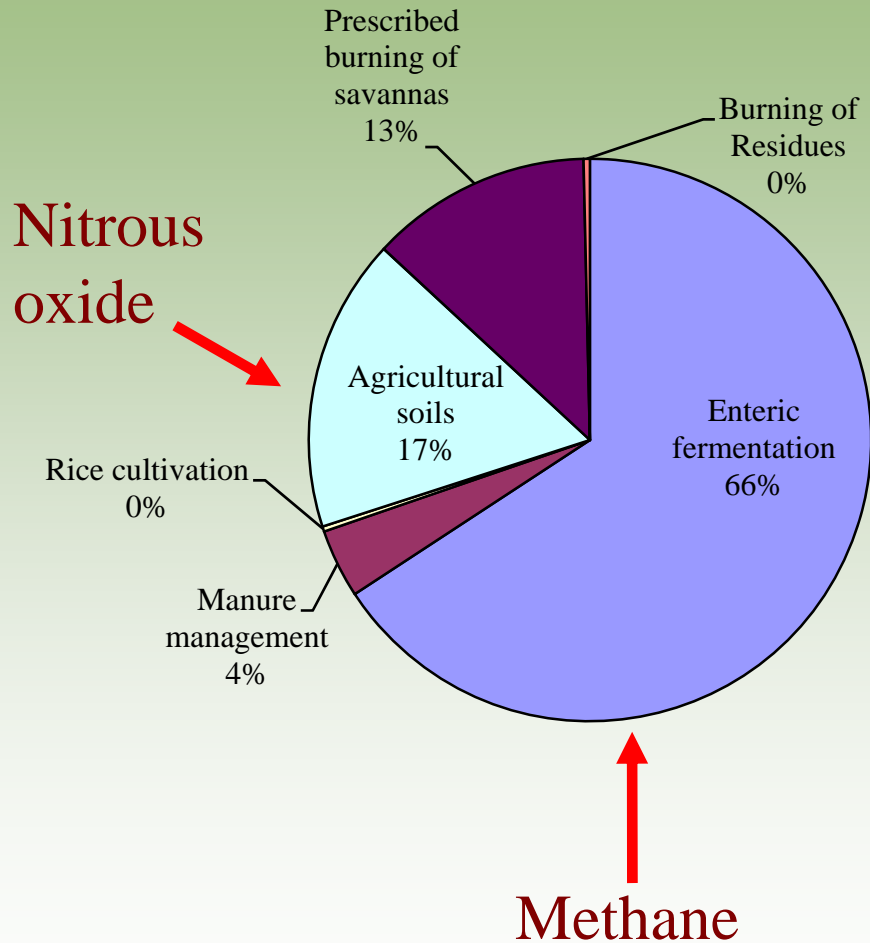


Sectoral Greenhouse Gas Emissions *Australia 2006*



DCC 2008

Agricultural Greenhouse Gas Emissions Australia 2006



- Agriculture

- 58% of all methane
- 81% of all nitrous oxide

- Enteric Methane

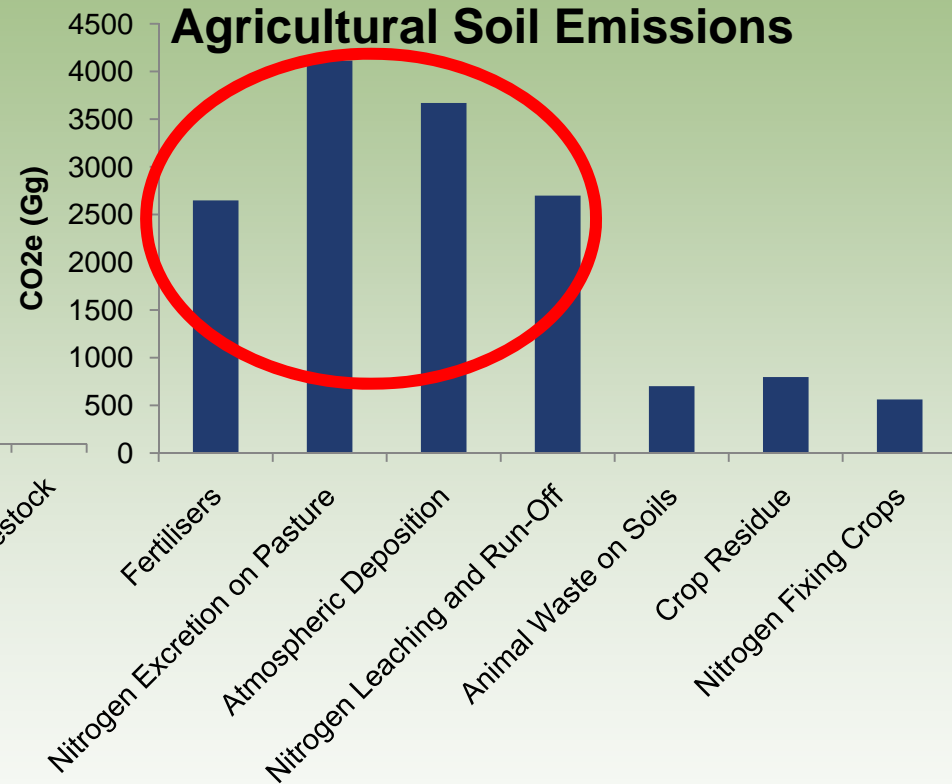
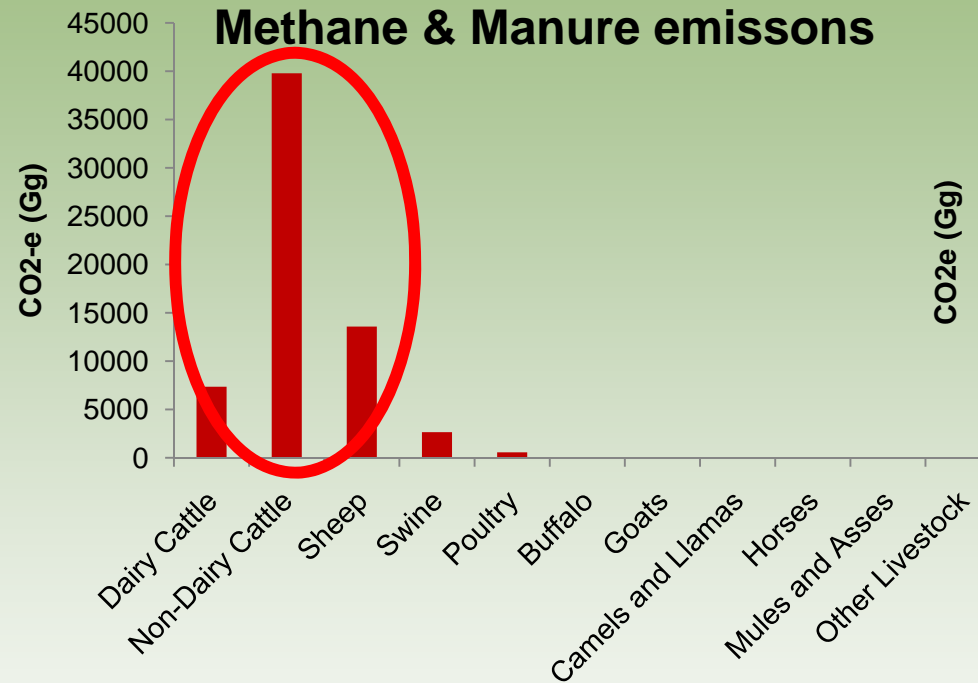
- 10.8% of National emissions

- Nitrous Oxide from soils

- 2.8% of National emissions

DCC 2008

Methane and Nitrous Oxide sources within Agriculture



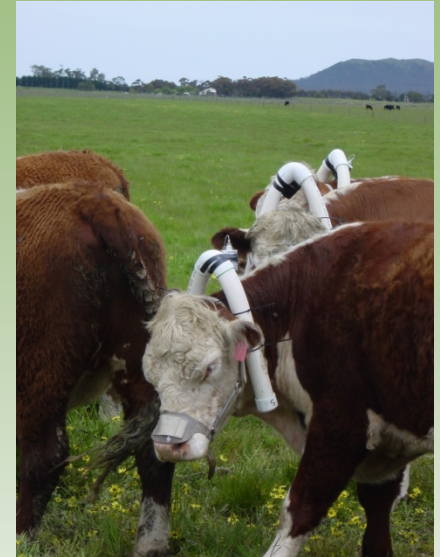
DCC 2008

The Carbon Pollution Reduction Scheme

- Agricultural emissions
 - Start by 2015, decision by 2013
 - No offsets prior to 2015
 - If not in CPRS, other policies will be considered
 - 16% of national account cannot be ignored
 - Other policies could provide less flexibility
 - Impact of CPRS
 - Will increase energy & chemical costs
 - BUT Not aiming for carbon neutrality
 - i.e. < \$1/cow NOT \$120/cow
 - Landcare/environmental plantings can count

Methane Abatement Options

- Improving Animal Genetics
 - Up to 20% difference in NFI
- Nutrition and Feed management
 - Diet quality, feed supplements
 - Oils, Tannin, Yeast, Enzymes
- Animal Management
 - eg. Reducing unproductive animal numbers
- Longer-Term options (5 – 20 yrs)
 - Vaccination
 - Biological Control
 - eg. Phages, Bacteriocins, Archaeal Viruses, Fungal Pathogens
 - Acetogens etc.



Grainger *et al.* 2007; Eckard *et al.* 2000; Waghorn *et al.* 2006

Nitrous Oxide Abatement Options

- Fertiliser management
 - Rate, Timing, Source and Placement
- Management
 - Soil structure & Stubble retention
- Fertiliser formulation
 - Controlled Release
 - Nitrification Inhibitors
- Urine
 - Nitrification Inhibitor Sprays

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