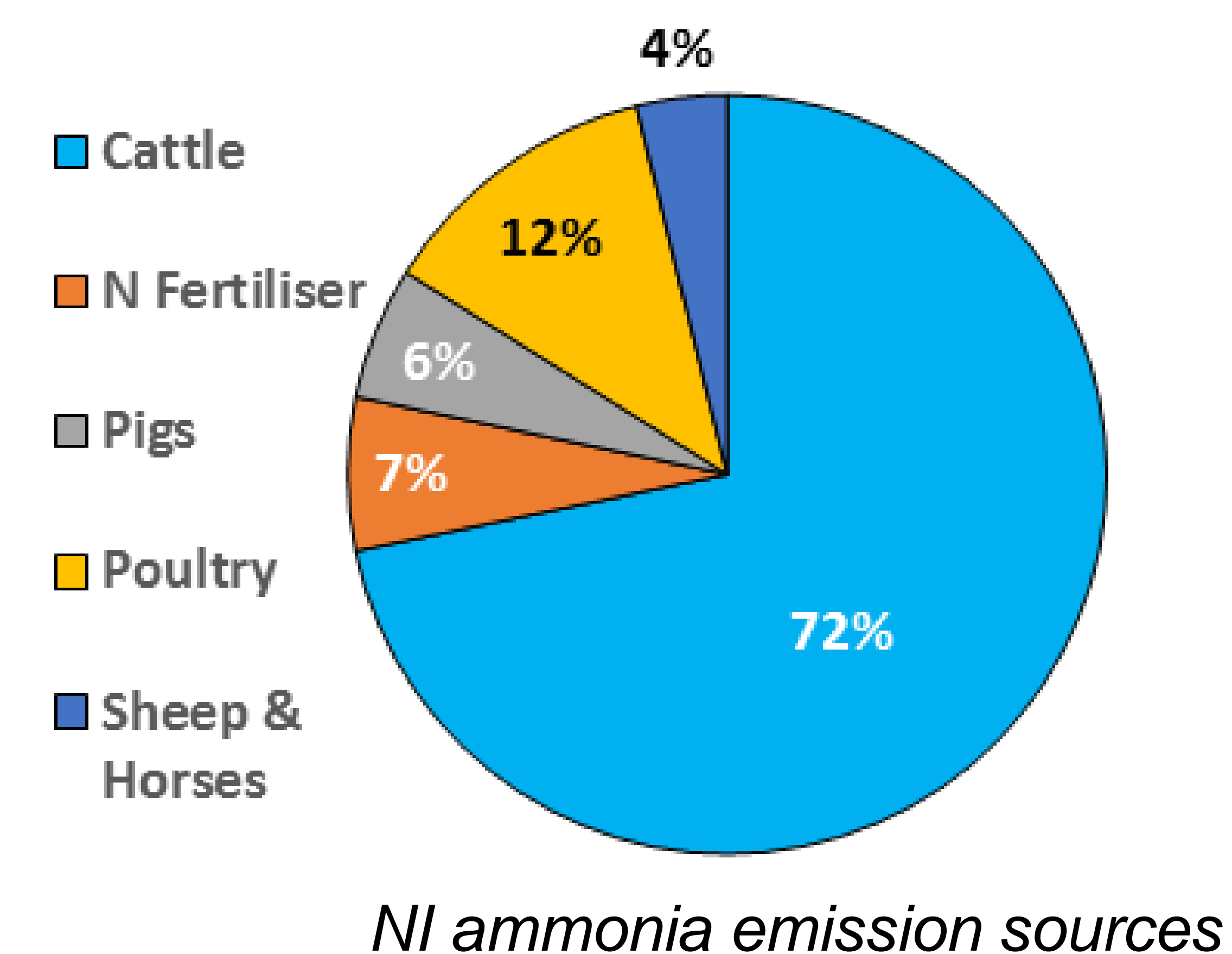
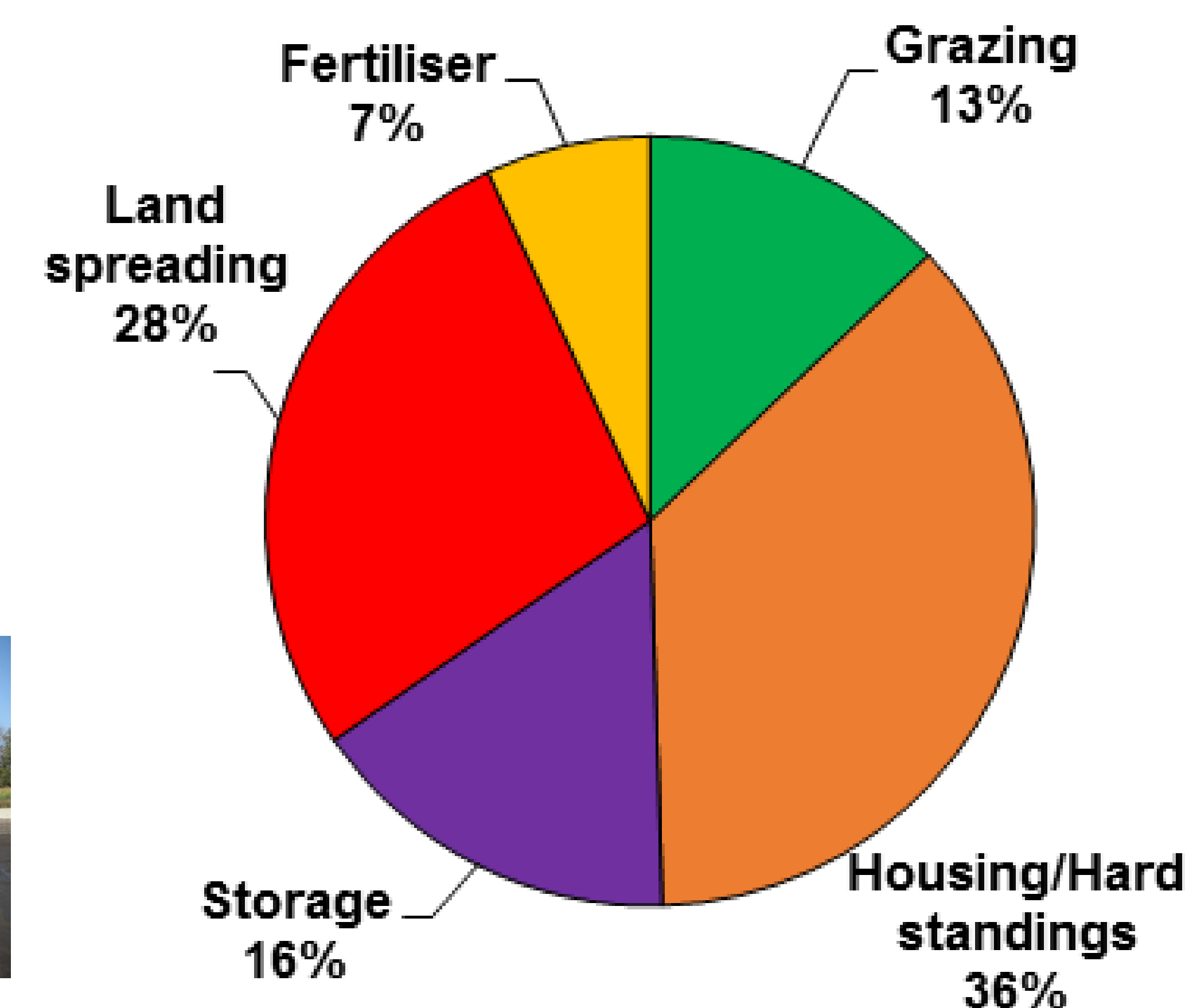


# Tackling Ammonia Emissions in Northern Ireland

- The emission of ammonia gas ( $\text{NH}_3$ ) from agriculture is both a loss of valuable nitrogen from manures / fertiliser and an environmental threat to protected habitats
- Up to 50% of the total nitrogen in dairy manure may be lost as ammonia under typical NI manure management practices



## Sources of emissions

- NI's emissions of ammonia are 12% of the UK total
- 93% of ammonia emissions in NI are from agriculture with the dairy and beef cattle sector producing 72% of these emissions.

## Imperatives

- NI is required to adhere to the ammonia emission targets under international treaties
- Ammonia emissions are major risk to sensitive habitats through loss of biodiversity
- These habitats are also protected under international legislation



# Tackling Ammonia Emissions in Northern Ireland

## Mitigation Measures

On-farm practices which can reduce ammonia emissions:

- Maximising length of grazing season
- More frequent scraping of slurry and washing down
- Covering outdoor slurry stores / lagoons
- Replacing splashplate with low trajectory dribble bar / trailing shoe
- Spreading manure earlier in season when cool and dry
- Applying stabilised urea rather than straight urea
- Reducing CP in livestock diets to meet, but not exceed, requirement
- Planting tree shelterbelts downwind of animal housing
- **A combination of these and other measures will be required to achieve significant reductions**

## New AFBI Research

- NI specific research is needed which reflects our specific agricultural practices, climate and soils:
- Determine cost-effectiveness of 10 ammonia mitigation measures
- Establish 25 ammonia monitoring sites across NI for 1 year to validate modelled nitrogen deposition
- Update UK Agriculture Inventory of Ammonia Emissions with data specific to N. Ireland
- Investigate novel ammonia mitigation strategies for dairy farms



AFBI is providing the evidence base to inform future policy decisions on ammonia