Investigating the distribution and presence, and potential for herbicide resistance of UK brome species in arable farming
Introduction

Aims and objectives

• Assessment of UK arable brome populations and understand how herbicide resistance may evolve

1. Survey UK farmers for the presence of bromes
2. Investigate range in herbicide sensitivity within and between brome species

- 5 main arable brome species in UK, last full survey in 1989
- ALS, ACCase and glyphosate resistant populations outside UK
Survey results

- Bromes present across all UK cereal growing areas
- *Anisantha* species more problematic than *Bromus*
- Brome ID poor
- 60% respondents reported an increase in presence of brome
ALS herbicide screen results

**Fresh weight**

Brome species and herbicide treatment

- **A. diandra**
- **A. sterilis**
- **B. commutatus**
- **B. secalinus**

Mesosulfuron & Iodosulfuron

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Mesosulfuron & Iodosulfuron

Pyroxsulam

Pyroxsulam

Pyroxsulam

Pyroxsulam

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Fresh weight
Summary and conclusions

• Bromes are wide-spread in UK arable farming with populations present across all cereal growing areas

• Herbicide control problems are developing

• Less sensitive populations will be further studied in glasshouse dose-response tests