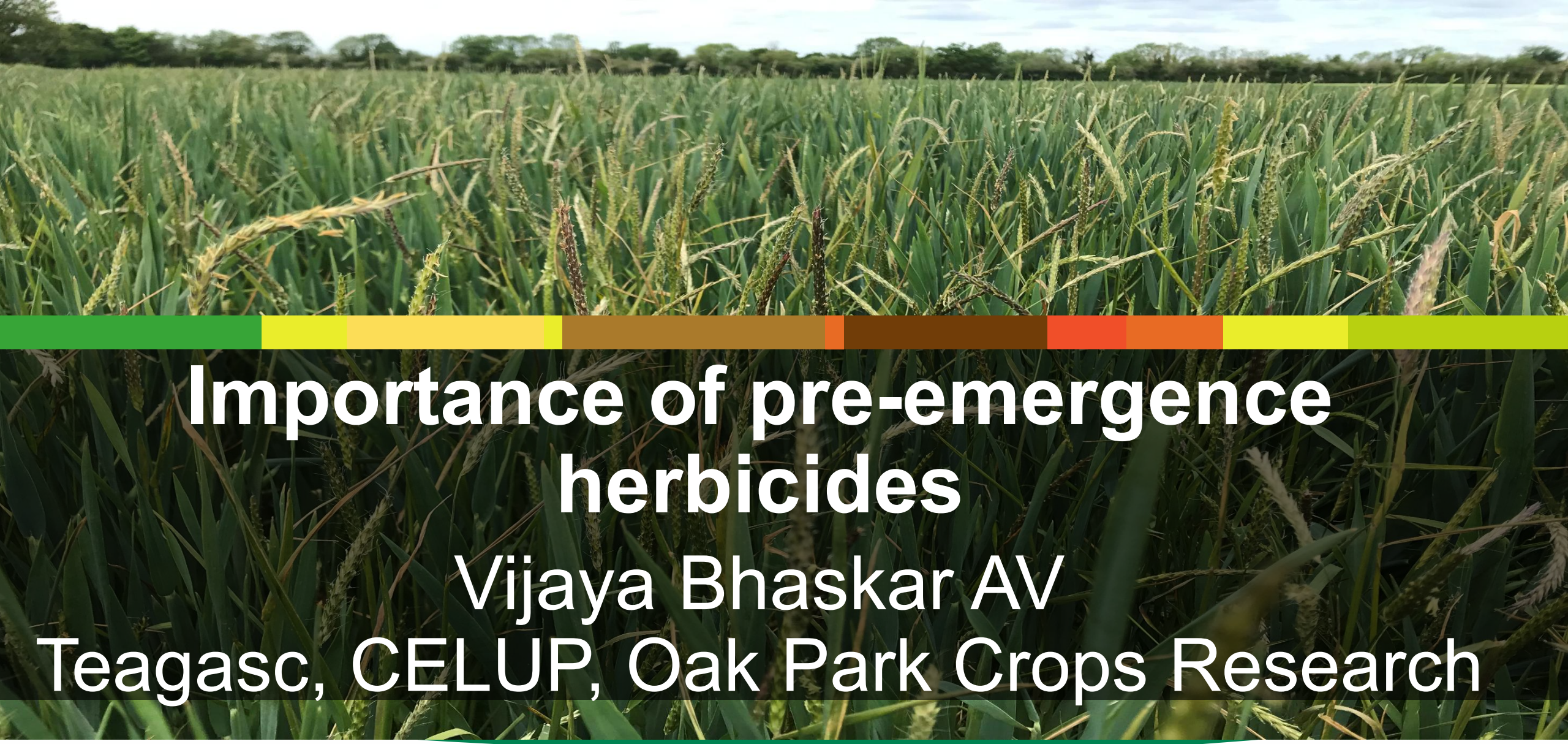

Importance of pre-emergence herbicides

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Autumn residual herbicides

- It’s the best opportunity to get on top of grass weeds
- Stop weeds before they emerge
- But **Timing** matters!

Residual herbicide efficacy: product & timing

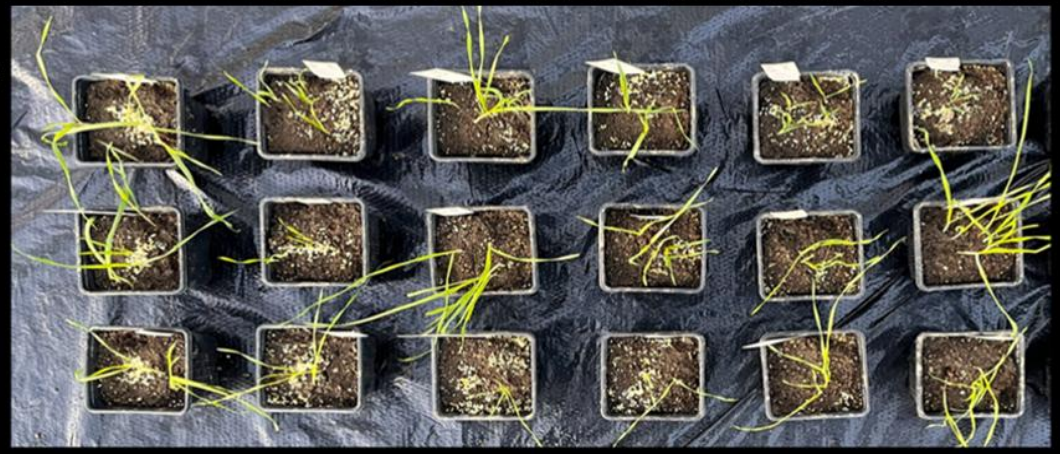
- **Different problem grass weeds**
  - Bromes, wild oats, blackgrass & Italian ryegrass
- **5 residual products applied at recommended label rates**
  - Avadex Factor, Stomp Aqua, Firebird, Defy & Tower
- **4 application timings:**
  - Pre-emergence: applied directly over seeds in moist soils (9% OM)
  - 1 leaf
  - 2-4 leaf
  - Tillering
- Herbicide effects assessed 30 days post-spraying

1) Bromes

Pre-emergence

Untreated | Avadex 3.6 l/ha | Stomp 2.9 l/ha | F Bird 0.3 l/ha | Defy 5 l/ha | Tower 2 l/ha

Sterile
Great
Rye



1 leaf stage

Untreated | Avadex 3.6 l/ha | Stomp 2.9 l/ha | F Bird 0.3 l/ha | Defy 5 l/ha | Tower 2 l/ha

Sterile
Great
Rye

2-4 leaf stage

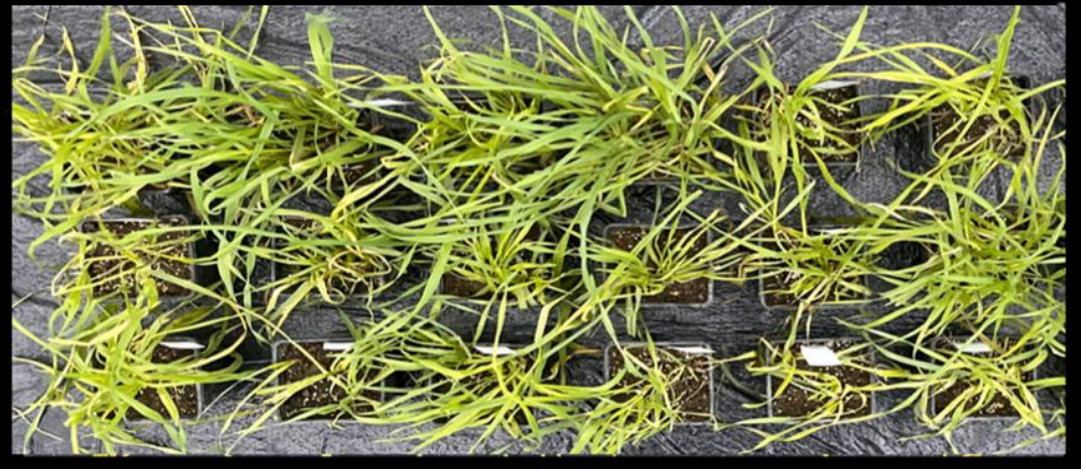
Untreated | Avadex 3.6 l/ha | Stomp 2.9 l/ha | F Bird 0.3 l/ha | Defy 5 l/ha | Tower 2 l/ha

Sterile
Great
Rye

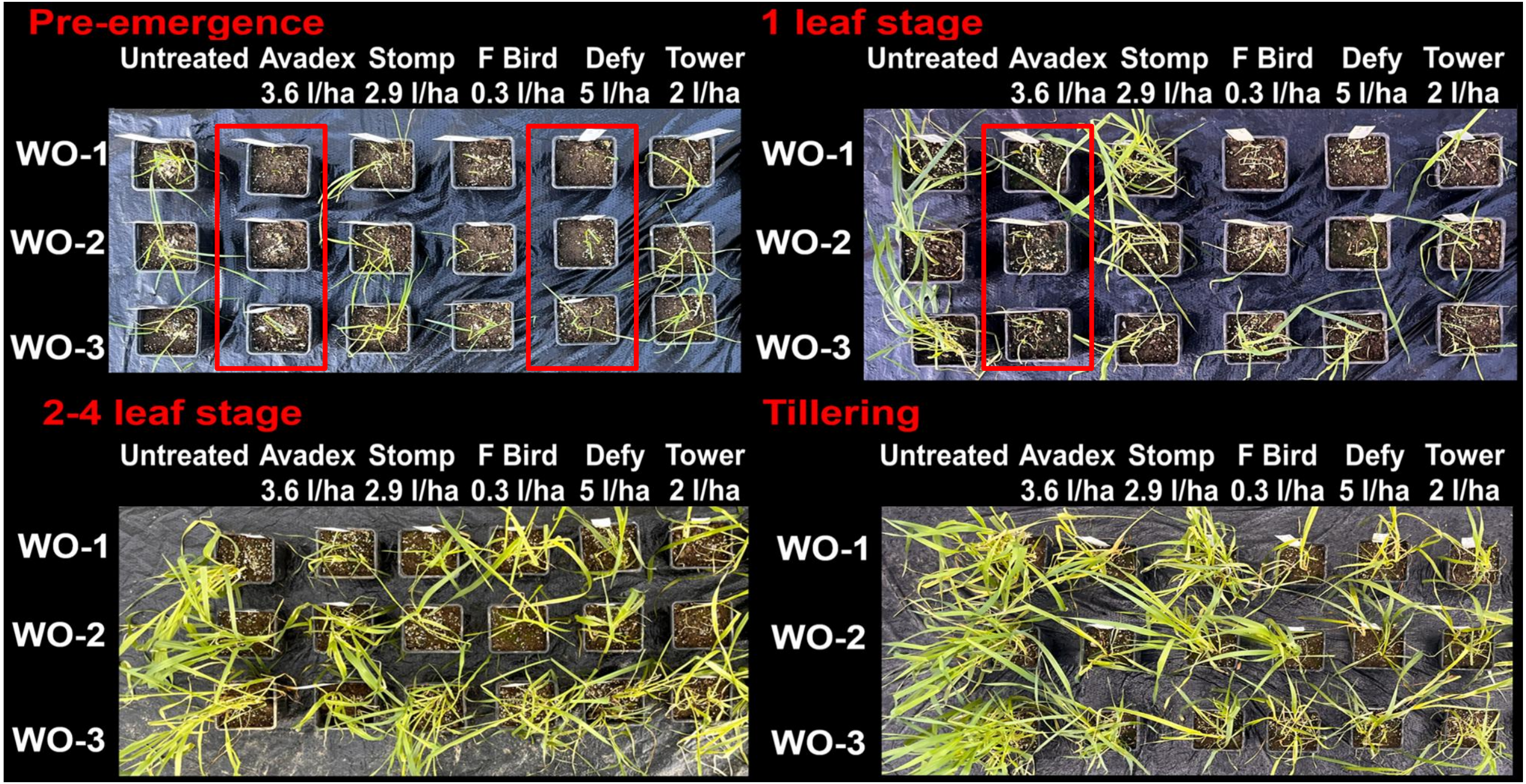
Tillering

Untreated | Avadex 3.6 l/ha | Stomp 2.9 l/ha | F Bird 0.3 l/ha | Defy 5 l/ha | Tower 2 l/ha

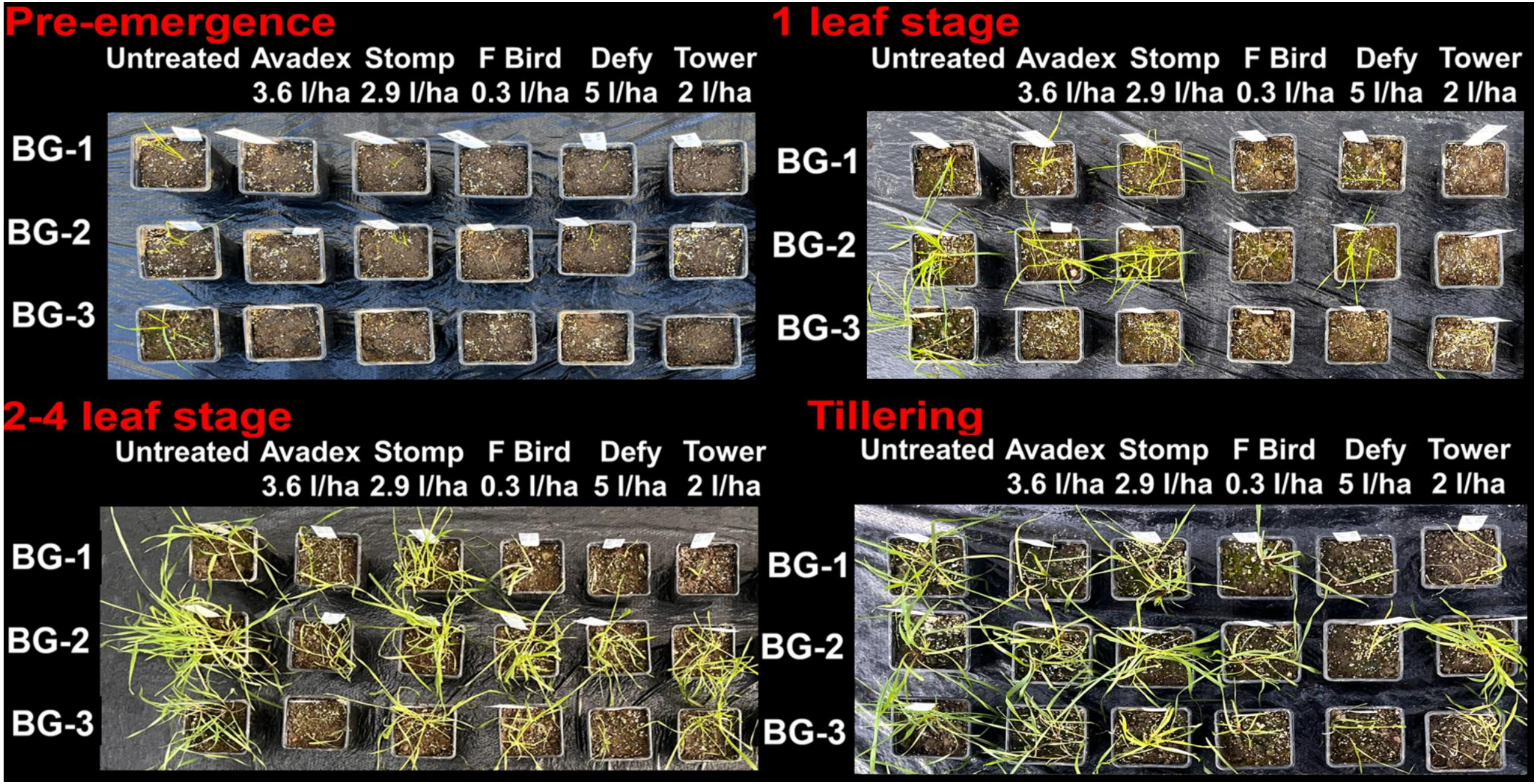
Sterile
Great
Rye



2) Wild oats


Pre-emergence
Untreated
Avadex 3.6 l/ha
Stomp 2.9 l/ha
F Bird 0.3 l/ha
Defy 5 l/ha
Tower 2 l/ha
WO-1
WO-2
WO-3
1 leaf stage
Untreated
Avadex 3.6 l/ha
Stomp 2.9 l/ha
F Bird 0.3 l/ha
Defy 5 l/ha
Tower 2 l/ha
WO-1
WO-2
WO-3
2-4 leaf stage
Untreated
Avadex 3.6 l/ha
Stomp 2.9 l/ha
F Bird 0.3 l/ha
Defy 5 l/ha
Tower 2 l/ha
WO-1
WO-2
WO-3
Tillering
Untreated
Avadex 3.6 l/ha
Stomp 2.9 l/ha
F Bird 0.3 l/ha
Defy 5 l/ha
Tower 2 l/ha
WO-1
WO-2
WO-3

3) Blackgrass

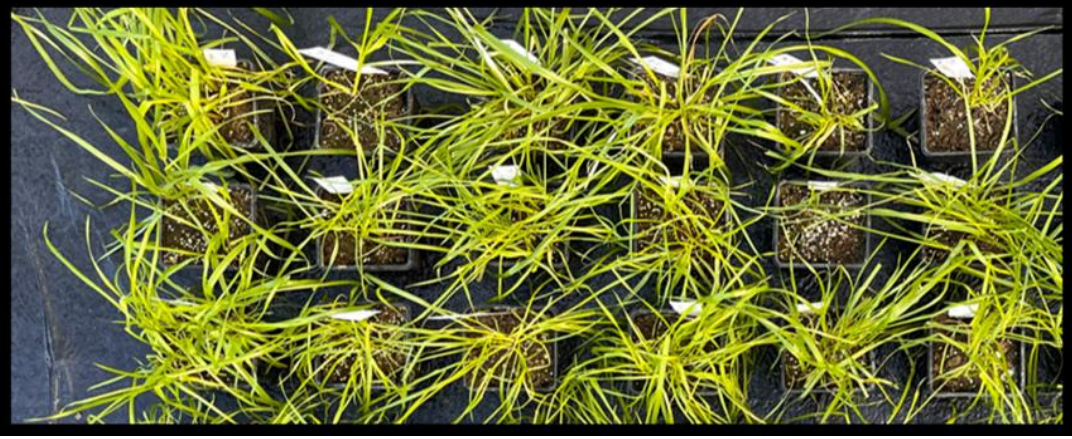


4) Italian ryegrass

Pre-emergence

1 leaf stage

2-4 leaf stage



Tillering

Take home message

- **Residual products MUST be applied at true pre-emergence**
- Product choice should reflect the target weed and field history
- Keep up the rates for blackgrass and Italian ryegrass
- Stacking vs. sequencing
- **UK blackgrass residual programme:**
  - Luximo + DFF + PDM (pre-emergence)
  - Fundatis/flufenacet + DFF + metribuzin (early post-emergence)
- Narrowing ‘chemical toolbox’ - only 7 residual actives left for cereals
- Future product availability???

Thank you

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Agriculture and Food Development Authority