Major insect pests of UK crops

Aphids in **OSR**, cereals and sugar beet

- Peach-potato aphid (**Myzus persicae**) transmits virus in OSR and sugar beet
- Grain aphid (**Sitobion avenae**) and bird cherry-oat aphid (**Rhopalosiphum padi**) transmit virus in cereals

Beetles in **OSR**

- Pollen beetle (**Meligethes aeneus**)
- Cabbage stem flea beetle (**Psylliodes chrysocephala**)

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[Image of insects]
Insecticide resistance in *M. persicae*

Field samples % with low (Nic-R) neonicotinoid resistance

Good news! No Nic-R\(^+\) or Nic-R\(^{++}\) found

MACE = Resistance to carbamates

kdr = Resistance to pyrethroids
Current position for CSFB/OSR

- Still have restrictions on use of neonicotinoids on crops that flower
- The UK government have allowed a small number of farmers (5%) to sow neonicotinoid-treated oilseed rape this autumn
- This is for farmers where there is high-level resistance to pyrethroids in cabbage stem flea beetles
- The effects on CSFB will be monitored (ADAS and Rothamsted)
- EU are reviewing the restrictions – Likely outcome?

![Map of UK with different colors indicating resistance levels of beetles]
Conclusion 4) Widespread use of neonicotinoids (as well as other pesticides) constrains the potential for restoring biodiversity in farmland under the EU’s Agrienvironment Regulation.

This may be the most far reaching conclusion as it is likely to lead to calls to extend the neonicotinoid restrictions and expand them to other crops and other insecticides.