



Pests

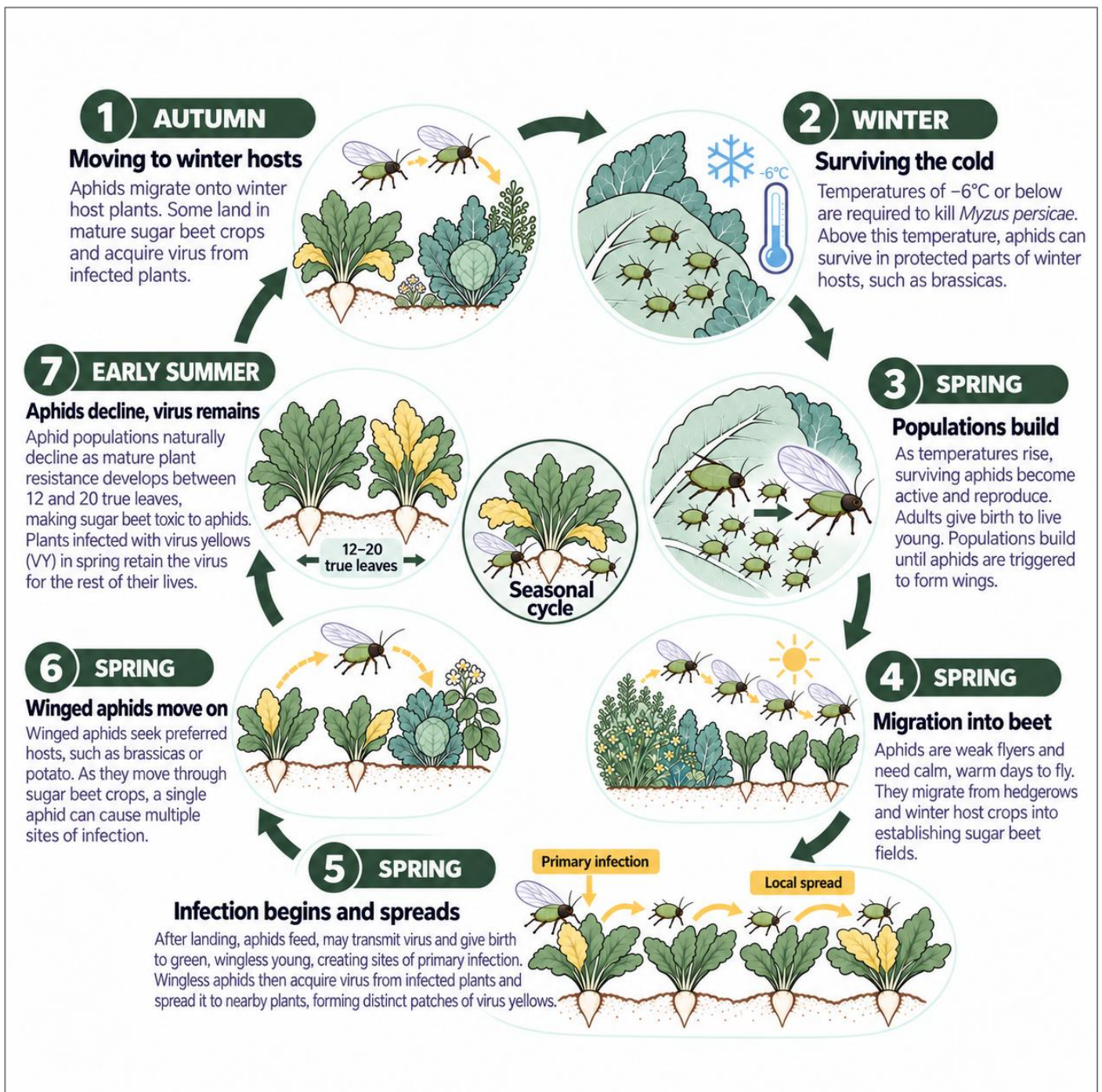
Aphids

Introduction

Aphids are among the most damaging insect pests of sugar beet due to their ability to host and transmit Virus Yellows (VY), a complex of 3 viruses that can significantly reduce crop yield and sugar content (see Virus Yellows Fact File).

Winged aphids migrate from overwintering hosts and establish new infestations in establishing sugar beet crops. Early season monitoring and responsible interventions can limit aphid population development and virus yellows spread.

Understanding their lifecycle is essential to plan for timely and appropriate aphid control.



Aphid Control Strategy

Adopt an integrated pest management strategy to limit the numbers of aphids in your local area. However, as migratory pests you will not be able to completely eliminate aphids from your crops.

Easy steps to take to help reduce aphid pressures in your crops:

1. Encourage beneficial insects: Predators of aphids, such as ladybirds (larvae and adults), lacewing (larvae) and hoverflies (larvae) are all known to be effective at keeping aphid populations in check in low-pressure seasons. Encourage them onto your farm by providing wildflower and grassy habitats.

2. Eliminate reservoirs of virus and aphids: Remove beet spoil and plough down cleaner runs. Incorporate tops and root remnants after harvest to prevent volunteer plants appearing in the spring which will attract aphids and allow them to potentially acquire VY.



This aphid was found to have survived in a small leaf curl on beet remnants over-winter. It was later confirmed to be carrying virus yellows (BChV) and would have been able to infect future beet crops.

See the On-farm Hygiene Fact File for advice on spoil control for pest management.

3. Forecasts: BBRO undertake aphid forecasting each March to estimate aphid abundance, migration start date and VY pressure. Use these data to guide in-crop monitoring.

4. BBRO AphidWatch: keep an eye on real-time observations of aphids (winged and wingless) in nearby crops. Remember, winged aphids act as an early warning. Green wingless aphids are the trigger used to spray an aphicide.

Results from on-plant counts and yellow water pan traps are available at bbro.co.uk

You do not need to identify aphid species to determine if your crop is at threshold, just look for green wingless aphids

5. Monitor crops regularly: Check for aphids in crops at least 2x a week on at least 20 plants per field. Check plants away from hedgerows and headlands.

Prepare to treat crops with an aphicide when required. In high-pressure years, order chemical onto farm early so you can spray when you reach the treatment threshold:

Up to 12 true leaves = 5 aphids per 20 plants
12-16 true leaves = 1 aphid per plant
16+ true leaves = No need to spray

When deciding on which aphicide to use follow latest in-season advice from BBRO and consider the risk of harm to beneficial insect populations as well as the population of aphids. Check the annually updated Aphicide Fact File for latest product choices.

Do not apply pyrethroids for aphid management as most aphids are resistant to them, but pyrethroids will kill beneficial insects.