



Fight against Blight

ISSUE 3: PLANTING



Source: Eric Anderson, Scottish Agronomy

**Blight control does not start in the crop.
It starts much earlier.**

**A little thought should go into planning
your field for the forthcoming potato crop.
If you don't, you could be confronted by a
few problems at a later date.**

Site selection

Factors to take into consideration prior to planting that may have an effect on blight control later in the season:

- 1. External sources of infection – Outgrade piles, volunteers** It is important when selecting a field for growing potatoes to think of external sources of infection. Try to stay as far away as possible from piles of discarded outgrades and fields that may have untreated volunteers.
- 2. Sources of infection within the field – oospores** At the time of writing there is no evidence that oospores are initiating blight outbreaks in GB. However, the risk of an oospore-derived outbreak is greater where a potato crop is grown on too short a rotation, where the previous potato crop had blight. Research in The Netherlands has shown that oospores can remain viable in a sandy soil for 48 months and in a clay soil for 34 months. In recent years in GB approximately one fifth of blight outbreaks have contained both mating types of the blight pathogen. It is therefore possible for oospores to have been produced. The best way to minimise the risk of an oospore-derived outbreak (see photo for signs of potential oospore infection) is to avoid short rotations, especially if it is known that the previous potato crop was blighted, or blighted volunteers



Source: ADAS



Source: Jens G Hansen, Aarhus University

were observed in the intervening years. Currently there is no test available for soil-borne oospores of *P. infestans*. Information on whether both the A1 and A2 mating types were present in any outbreak will probably be available if samples of blight were submitted through the Potato Council's FAB campaign.

3. **Water courses** Identify where your watercourses are in relation to your potato field. Certain blight fungicides carry a LERAP category B rating. This requires a buffer zone of between 1 and 5 metres, depending on LERAP assessment. Some aphicides added to blight sprays carry a LERAP category A rating, resulting in a mandatory 5 metre buffer zone. This may affect your blight spraying options later in the season.
4. **Trees** Potatoes planted beside trees can often act as "hotspots" for blight spread, due to the creation of a sheltered, more humid microclimate which is ideal for the production of spores. If possible leave land in close proximity to such areas unplanted or consider crops other than potatoes.
5. **Permanent objects – telegraph poles / electricity pylons** Planting too close to poles and other permanent objects can leave areas of the crop with poor fungicide coverage. Leave enough room for the sprayer to be able to cover all around the object, at a safe distance.
 - Areas between objects may be wide enough to plant but may not be wide enough to spray later in the season. **If you can't spray it - don't plant it.**
6. **Temporary objects – irrigation pipes** Plan where you will need to put header/feeder pipes in relation to where you will need to have access with your sprayer. This may influence the way you wish to plant the field.

Field hygiene

This is a very important area and is often forgotten about at planting because of busy workloads.

- Small quantities of tubers are often discarded in corners of fields or on unplanted headlands when changing to different varieties during planting.
- Seed boxes can often be left on unplanted headlands for storage and can contain unused tubers.

The above can remain there throughout the season and any resulting plants will not receive any fungicide spray. These plants can be as big a source of infection as any more distant outgrade pile.

Action

- Ensure all boxes are properly emptied
- When changing variety empty all unused tubers from the planter into a sack or box and remove from the field

Planter setting

Beds may be eroded later in the season through excess rainfall or irrigation, leaving very little soil cover, resulting in a higher risk of zoospores being washed down into the soil and infecting tubers. To reduce this:

- **Check wheel widths** on both planter and tractor. Make sure they are at the correct spacing and not running on the edge of beds.
- Cultivate **deeply enough** to supply enough tilth to allow adequate soil cover.
- Make sure tubers are planted in the middle of the bed with adequate soil cover both above and to either side of the tubers.
- Check **planter ploughs / discs** for wear. Replace if worn.
- **Avoid shallow planting** – this makes it more difficult for inoculum to travel from any infected seed through the soil and onto the foliage. It will also make it more difficult for any blighted tubers to produce a plant that becomes infected and therefore acts as a primary infection source.

If you require any specific advice about your own situation please contact your local agronomist.