Blight Control

The very hot weather in July doesn't seem to have stopped the spread of blight especially where there have been gaps in programmes. We have seen stem blight in Oak Park in late July during the really hot week when temperatures were almost 30ºC, this highlights the need to continue to be vigilant. August is often a time when blight gets into crops under the radar as many growers are busy at the cereal harvest or many garden growers are away on holidays so blight applications often can be missed or delayed, be aware that any slip ups could prove costly. Continue to keep intervals tight and to label recommendations.

Stem blight in Oak Park in untreated plots

Most commercial growers now avoid using products that contain Fluazinam late in the season due to the risk of infection from 37 A2, as we still don't know how much of the resistant strain is present in Ireland it would be considered risky to use Shirlan etc. at this stage. We did identify 37 A2 in Oak Park in 2020 but we haven't received any samples from around the country to establish how prevalent it is in the country. We are however, aware that many small growers continue to use Shirlan, Volley etc. throughout the season but they should not be used on their own and they certainly should not be used where crops are destined for cold stores.

Preventing tuber blight starts with controlling leaf infection, this will help to prevent zoospores being produced which can fall down into the soil and infect the tubers. Therefore, the programme from stable canopy onwards needs to ensure that there are no outbreaks of blight. This should in turn help to reduce the amount of infection that is likely to get into store. Table 1 below shows fungicide options for late season. Ranman Top is the product most likely to be used to prevent zoospore spread but the other options will also give good control by preventing blight spread.

Table 1:

Product Name	Active Ingredient	Rate /ha (L/ha)	Max no of applications
Infinito	Propamocarb + Fluopicolide	1.6	4
Ranman Top	Cyazofamid	0.5	6
Zorvec Endavia	Oxathiapiprolin + Benthiavalicarb	0.4	4
Zorvec Enicade + Gachincho	Oxathiapiprolin + Amisulbrom	0.15 + 0.3	4

As always have some cymoxanil products e.g. Option, C50 or Cymbal on hand just in case you need some curative activity and again adhere to the maximum total applications allowed.

As mentioned earlier, we know that the 37 A2 was present in Oak Park in 2020 but we still don't know what level or distribution is present around the country, Teagasc would still like to get some samples to test if we have this strain so if you see blight please contact your local Teagasc advisor so we can test it or we can arrange for FDA cards to be sent out to capture the blight samples. The link below from Euroblight shows the protocol for sampling blight using FDA cards https://agro.au.dk/fileadmin/euroblight/Protocols/Protocol_for_sampling_Phytophthora_infestans_DNA_using_FTA_cards_2020.pdf and the Youtube link shows how it is done https://www.youtube.com/watch?v=BQLe0G7vdHY.

Desiccation

At the time of writing, diquat has not received approval for use in the coming season although a derogation has been applied for. That leaves us with two chemical options available which are Spotlight Plus and Gozai. Both products act in the same way and are therefore better on stems than leaves. They are both regarded as slower acting than diquat was. Unlike diquat the timing of the application and the conditions when they are applied do have a significant bearing on the activity of the products. When applying Spotlight Plus or Gozai consider the following tips to get the maximum effect on the crop;

1. Apply to a crop that is already starting to senesce and at least 4 weeks before harvest.
2. Use two applications of Spotlight or Gozai or both.
3. Use a minimum of 300 l/ha of water.
4. Max individual dose of Spotlight plus is 1.0 L/ha. Max second dose is 0.6 L/ha regardless of how much was used in the first application.
5. Max total dose of Spotlight Plus is 1.6 L/ha (Including any Spotlight Plus used as a herbicide).
6. Max individual dose of Gozai is 0.8 L/ha.
7. Max total dose of Gozai is 1.6 L/ha (Including any Gozai used as a herbicide).
8. Apply the second application at 7-10 days.
9. A three spray programme may be needed in some cases e.g. T1; Spotlight Plus. T2; Gozai. T3; Gozai or Spotlight plus. Leave 7 days between each application.
10. Always include a methylated vegetable oil adjuvant with Gozai e.g. Toil, Phase II.
11. Apply to crop on a bright sunny day which will help with leaf destruction.
12. Apply in the afternoon rather than evening.
13. Where used with haulm topping apply the Spotlight within 24-48 hours.
14. The use of Ranman Top seems to increase the activity of the Spotlight Plus and Gozai
15. Some growers are using trace elements to “heat up” the mixture and scorch the leaves but results are variable. Scorch effect is probably best achieved on bright sunny days.

Last year Teagasc conducted a number of trials looking at different treatments of Spotlight and Gozai, alone, in combination and in mixtures with other products to investigate what were the best strategies for desiccation. There were two sites and two different burn down timings used, one in early August and one in early

September. All the August applications and treatments worked well and we had full desiccation with crop ready to harvest within 4 weeks, in contrast the September plots with the exception of the haulm topped plots were much slower to desiccate and after 5 weeks were still not ready for harvest. This highlights the importance of UV light to the performance of PPO Inhibitors such as Spotlight Plus and Gozai. Teagasc have produced a video (see below) which looks at the performance of the different treatments from these trials and also shows the differences between August and September applications. https://www.youtube.com/watch?v=QshOvNLA67w&t=6s

The AHDB have also done some trials on different desiccation strategies and have published a report on the trials from 2019 which can be found at the following link below;
https://projectblue.blob.core.windows.net/media/Default/Research%20Papers/Potatoes/AHDB%20Desiccation%20Report%20P1901285%20Final.pdf

Haulm topping will be used more widespread this year especially as they are now approved for TAMS grants, again a couple of points to consider;

1. Set the topper to leave a minimum of 8 inches of stem. You will need some leaf for fungicides and desiccants to work.
2. Watch out for scalping of drill especially in wheelings.
3. With trailed machines some haulm may be pushed down by wheels and not topped. Fit risers to the haulm topper where this is a problem.
4. Try to destruct on a dry day.
5. Ensure that there is no blight or blackleg in the crop before destruction.
6. Treat with a desiccant and fungicide within 24-48 hours.

Leave 8 inches of stem and leaf to help with uptake of desiccants.