

# The fight against blight

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**G**rowing potatoes is not for the faint hearted. They are a high input crop with costs for commercial growers coming to over €2,500 per acre in many cases. One of the biggest expenses is disease control, potato blight (*Phytophthora Infestans*) in particular.

The annual battle is already under way, whether you are a commercial, organic or just “growing few drills for the house” type of grower.

We are all familiar with the regular blight warnings issued by Met Eireann, which indicate that a period of weather favourable to the spread of the disease is on the way.

Most commercial growers are using weekly fungicide programmes to keep ahead of the fungus, as it can be very difficult to “cure” once you get a bad infection. Casual growers probably don't need to apply fungicides every week, but they still need to control blight.

If casual or hobby growers ignore blight warnings, not only do they put their own few drills at risk, they can put neighbouring crops at risk too.

Blight can spread from single plants grown in gardens or patios, volunteers in other crops, dumped potatoes or even discarded skins, etc.

If any of these potato plants become infected with blight, it can spread very quickly into commercial crops, potentially destroying them. We hear many advisors talking about Integrated Pest Management (IPM) in regards to controlling weeds, disease and pests. Put simply, this means using both chemical and non-chemical measures to control the particular pest in question.

One simple IPM measure when it comes to controlling blight is to pull or destroy potato plants growing where they are not supposed to be.



This removes sources of infection and reduces the risk to the national crop.

Unless they are organic growers using “resistant” varieties or copper sulphate solution “Bordeaux Mixture”, most growers will apply conventional fungicides to control the problem. Mancozeb is by far the most famous fungicide used in controlling blight over the years and most people who grew up on farms would be familiar with the can of Dithane 945 in the shed for potatoes – in many cases it was used throughout the season.

However, this is the last season that Mancozeb can be used on potatoes, as its registration for use expired earlier this year. In the last few years, products containing the active ingredient Fluazinam, e.g Shirlan or Volley, became popular among growers, mainly for use late in the season as it had good activity on tuber blight.

Similar to Mancozeb, many small growers used this product throughout the season as it was available in small quantities. However, like many other organisms, blight is continually evolving and mutating, which results

in different strains of blight developing that have different characteristics, including in their resistance to fungicides.

A strain of blight called 37 A2 has developed across Europe which is largely resistant to fluazinam. This strain has spread to most countries across the continent and Dr Steven Kildea in Oak Park confirmed its presence in Ireland in 2020.

We know that we have mixtures of strains in the blight population, however if your crop contains the 37 A2 strain, then we can safely predict that control from Fluazinam products will be poor.

Therefore, the advice is this: If you are going to use Fluazinam, only use it once during the season and mix a partner product with it, e.g cymoxanil, to spread the risk.

Steven Kildea is constantly monitoring blight and looking at the performance of different active ingredients against the fungus. To this end, we are always looking for blight samples from across the country, to analyse which strains are prevalent in Ireland.

**Table 1:** Approved potato fungicides 2021.

Product Name	Active substance	Mode of Action	Rate/ha	PHI (days)	Max no. of applications
Ranman Top	Cyazofamid 160 g/l	Contact	0.5l	7	6
Shirlan/Tizca/Volley/Fluazinova	Fluazinam 500 g/l	Contact	0.4l	7	10
Kunshi	Fluazinam 375g/kg + Cymoxanil 250 g/kg	Translaminar + Contact	0.5kg	7	8
Grecale	Fluazinam 300g/kg + Cymoxanil 150 g/kg	Translaminar + Contact	0.6l	7	6
Vendetta	Fluazinam 375g/kg + Azoxystrobin 150 g/kg	Contact and protectant	0.5l	7	-
Option	Cymoxanil 600 g/kg	Translaminar (Tank Mix partner only)	0.15kg	14	8
C50 WG	Cymoxanil 500 g/kg	Translaminar (Tank Mix partner only)	0.24kg	7	4
Cymbal	Cymoxanil 450g/kg	Translaminar (Tank Mix partner only)	0.25kg	14	6
Revus	Mandipropamid 250 g/l	Translaminar + Contact	0.6l	3	4
Proxanil	Propamocarb 400g/l + Cymoxanil 50g/l	Translaminar + Contact	2.5l	14	4
Infinito	Propamocarb 625 g/l + Fluopicolide 62.5 g/l	Translaminar+ systemic	1.6l	7	4
Zorvec Endavia	Oxathiapiprolin 30 g/l + Benthiavalicarb 70 g/l	Systemic and Protectant	0.4l	7	4**
Zorvec Enicade + Gachincho	Oxathiapiprolin 100 g/l + Amisulbrom 200 g/l	Systemic and Protectant	0.15l + 0.3l	7	4**
Curenox 50 WP*(Off label approval)	Copper Oxychloride 87.8 % WP	Contact	1.0kg	8	6.0 kg

\* Curenox 50WP is approved by the Irish Organic Association for use on organic potato crops

\*\* Max of 3 consecutive applications

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