



Velum Prime

New for 2021

Offering wider flexibility in application options for potato growers



Introducing Velum Prime

The novel low dose liquid nematicide choice for potato growers.

Following the recent authorisation for the broadcast and incorporate application method, Velum Prime now offers growers a wider flexibility in application method choice.

Velum Prime is a liquid formulation of the SDHI Fluopyram, which is highly active in protecting potato crops from plant parasitic nematodes. It works by inhibiting Adenosine Triphosphate (ATP) production in mitochondria, causing paralysis then death of juvenile nematodes.

Velum Prime – the benefits

- Velum Prime targets Potato Cyst Nematodes (PCN) which are estimated to cost the potato industry over £25 m in losses.
- Velum Prime has many benefits that make it an effective nematicide option for growers.



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Targets PCN which infect large percentages of ware crops



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Flexible application – either an in-furrow application at planting or broadcast spray and incorporation* prior to planting



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With no harvest interval, Velum Prime can easily be used on short season crops



5

Favourable beneficial environmental profile – strong interest among food retailers



3

Easy to use: spray at a low dose rate of 0.625 L/ha only containing 250 g ai/ha – saves filling time and reduces costs



6

Reduces crop protection chemical load, contributing to sustainable farm management

*Soil incorporation must be made to a minimum depth of 10-20 cm





The different application options available

From 22 UK replicated trials, where both in-furrow and broadcast/incorporation methods were used, the performance of either application method was found to be comparable, with both methods providing similar PCN population management and yield protection.

It is recommended to use the application method that best fits to existing cultivation and planting systems.

	Untreated	Velum B/I	Velum I/F
Total yield (t/ha)	32.1	37.0	35.9
Pf/Pi	10.69	5.34	6.09

Getting the most out of Velum Prime: when and how to apply

Label specifics		
Application method	Broadcast and incorporate	In-furrow
Maximum individual dose	0.625 L/ha in 200-500 L/ha water MEDIUM or COARSE spray quality (as defined by BCPC) is recommended	0.625 L/ha in 200-500 L/ha water (reducible to 100 L/ha) MEDIUM or COARSE spray quality (as defined by BCPC) is recommended
Timing <i>Note: no harvest interval</i>	February – June Maximum 72 hours prior to planting Broadcast spray applications are limited to once every three years	At planting Can be applied once a year and has no calendar date restrictions
Incorporation depth	Soil incorporation must be to a minimum depth of 10-20 cm	Applied directly into the furrow at planting, does not require further incorporation

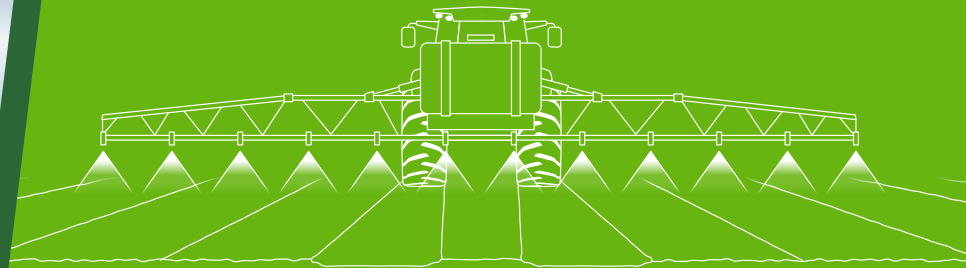
Broadcast application



Farm horizontal boom sprayer

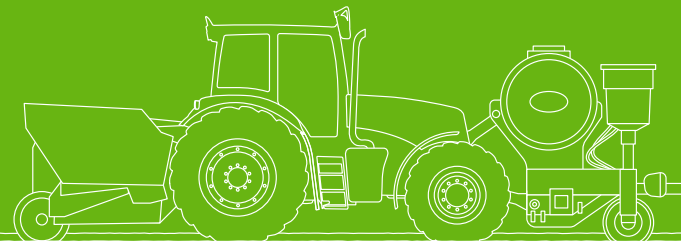
The Velum Prime application can be made to the flat soil following primary cultivations, ridged beds (where there is no requirement for destoning) or destoned beds.

The product must then be incorporated with rotary cultivation, such as a bed tiller/bed mixer, to a minimum depth of 10-20 cm ahead of planting.



Liquid applicator fitted to cultivation equipment

The Velum Prime application can be made to either the ridged beds (where there is no requirement for destoning) or to destoned beds from a liquid application system fitted to your bed mixer/bed tiller. The product would then be immediately incorporated to a minimum depth of 10-20 cm in one pass and then the field planted. Liquid applicators can be fitted to existing rotary cultivation equipment, for enquires please contact a relevant machinery company.



Important application considerations – broadcast and incorporate

- Any destoned beds must be level/even prior to application or there is a risk of uneven distribution of Velum Prime throughout the soil profile
- Any areas of the field that receives an application of Velum Prime must be incorporated to a minimum depth of 10-20 cm
- The planter alone does not provide sufficient incorporation to this minimum depth
- If applied via a liquid applicator the operator must have the relevant certification



Careful cultivation

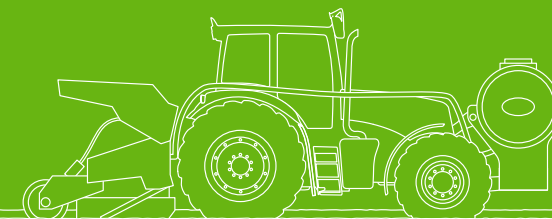
It is essential that any pre-planting cultivations thoroughly incorporate Velum Prime evenly through the bed profile, to a minimum depth of 10-20 cm. If you are in any doubt about which pre-planting cultivation methods should be employed, then please contact your agronomist or local Bayer Commercial Technical Manager.

Broadcast and incorporate method: example cultivation sequences	
High stone/clod soil content DESTONING REQUIREMENT	Low stone/clod soil content NO DESTONING REQUIREMENT
Deep ridging → bed tilling → destoning → Velum Prime application → incorporation → planting	Deep ridging → Velum Prime application → cultivator/ incorporation → planting Primary cultivations → Velum Prime application → cultivator/ incorporation → planting Primary cultivations → Velum Prime application → cultivator + planter combination
Velum Prime should only be applied after destoning operations have been carried out. Such operations can move soil from 30-40 cm depth, leading to a risk of dilution and banding of the product.	Application positioning will be made on a case-by-case basis. Velum Prime may be applied to the flat soil following primary cultivations or to ridged beds ahead of incorporation and planting.
Thorough incorporation of Velum Prime should be made by a rotavator type cultivation, such as a bed tiller/bed mixer and must be to a minimum depth of 10-20 cm	

In-furrow application



Velum Prime can be either pre-mixed on the water tank or applied via an injections system such as Dosatron (Note: only where the injections unit can apply at the low dose rate of 0.625 L/ha). The nozzle positioning should be set up in a way that there are two nozzles per furrow, directed to spray the soil as it folds in to the furrow.



The pros and cons – helping you make the right decision

There are many advantages to the application methods, however it is also prudent to note the potential negatives in order to make an informed decision:

Broadcast and incorporate		In-furrow
Farm horizontal boom sprayer applications	Liquid applicator fitted to cultivation equipment	Liquid in-furrow application equipment on the planter
Advantages		
<ul style="list-style-type: none"> • No requirement for additional kit on the bed tiller/mixer • Spray operator already fully qualified for application • Larger spray area covered, meaning less re-filling than a tank fitted to cultivation equipment 	<ul style="list-style-type: none"> • Less pressure on the 72 hour label window, as immediate application and incorporation • No requirement for additional sprayer pass which potentially means one less worker required • Similar practicalities of refilling the tank in the field already used in potatoes (e.g. fertilisers) • Application systems are available and can be fitted to existing kit by various manufacturers 	<ul style="list-style-type: none"> • No requirement for additional machinery/sprayer pass which potentially means one less worker required • Similar practicalities of refilling the tank in the field already used in potatoes (e.g. fertilisers) • Application systems are available and can be fitted to existing kit by various manufacturers • Does not impact current cultivations sequencing (re. destoning)
Possible disadvantages		
<ul style="list-style-type: none"> • Sprayer availability • Extra spray pass to current cultivation sequence • Increased pressure on the 72 hours label window (breakdowns, weather etc.) 	<ul style="list-style-type: none"> • An additional piece of equipment to purchase and fit • The tractor driver must have the relevant qualifications required to apply liquid pesticides in this application method 	<ul style="list-style-type: none"> • An additional piece of equipment to purchase and fit • The tractor driver must have the relevant qualifications required to apply liquid pesticides in this application method

Flexibility of application

There are different options for Velum Prime application and our Decision Support Tool can help you to determine the most appropriate route.

Does your intended potato field require a destoning/declodding cultivation?

YES

Do you have the equipment to apply liquids on your bed tiller/mixer?

YES

Velum 0.625 L/ha can be applied and incorporated to a minimum depth of 10-20 cm via the **liquid application equipment fitted to your bed tiller/mixer** in 200-500 L/ha water, ahead of planting. This application should follow any destoning operations.

NO

Velum 0.625 L/ha can be applied via a **horizontal boom sprayer** in 200-500 L/ha water. This application should follow any destoning operations and must be incorporated to a minimum depth of 10-20 cm prior to planting OR apply Velum via the **in-furrow application method**.

NO

Do you have the equipment to apply liquids on your bed tiller/mixer?

YES

Velum 0.625 L/ha can be applied and incorporated to a minimum depth of 10-20 cm via the **liquid application equipment fitted to your bed tiller/mixer** in 200-500 L/ha water, ahead of planting.

NO

Velum 0.625 L/ha can be applied via a **horizontal boom sprayer** in 200-500 L/ha water. This application must be incorporated to a minimum depth of 10-20 cm prior to planting OR apply Velum via the **in-furrow application method**.



Over to you

If you are interested in finding out about Velum Prime in potatoes please visit cropscience.bayer.co.uk/velumprime or contact your local Bayer Commercial Technical Manager for further information.



VELUM
PRIME

