

## Potato update: the start of the season

Product Update

09.05.2016



In mid-April, the 'Potato Weekly Update' by the AHDB reported how heavy showers were restricting planting in light soils. At that time most other soils were deemed too wet for planting and the dry week that was forecast thereafter didn't happen for many. Conditions since then have remained challenging and planted area remains behind recent seasons.

For those crops already in, cool night time temperatures have slowed growth - after three weeks this crop in Shropshire had however started to chit. As soil temperatures get closer to 10°C these crops are now starting to emerge.



No emergence after 3 weeks, but chitting had started by mid-April on sandy ground



Emergence has now just started

## **Starting the fungicide programme**

Understanding what the risks are and when they occur are fundamental to getting product choice right. Shirlan is commonly recognised for being used at the front and back of a blight control strategy but why is that? As tubers form they become vulnerable to infection from sporangia and the zoospores which they release. Infection occurs via these spores being washed down through the soil, or down the stems themselves. Shirlan has activity on zoospores, so by using it early on protection is provided from the off. At harvest, tubers that come into contact with zoospores can also become infected - so Shirlan has a good fit here also.

## **Protecting the growing crop**

In pure fungicide terms the advice of old for blight control was to begin protection when plants meet along rows, or when the first warning of risk occurred. With the possibility that blight populations may now be active at temperatures below 10°C (thus below the accepted Smith Period trigger point), diligence is required from the off. With sufficient soil moisture and/or humidity the early onset of blight could occur, and we are certainly not short of the former! It is worth noting also that sporangia can release zoospores down to as low as 4°C!

As the crop moves into the rapid canopy phase it will then be necessary to protect rapid canopy growth with sprays that have good ratings for protection of new growth. Revus falls into this category and is ideally suited to rapid canopy growth because it will bind strongly to the leaf wax layer and via translaminar movement move from one side of the leaf to the other. Another benefit of Revus at this time is its class leading rainfastness – useful whether irrigating or leaving mother nature to water the crop.

## **Blight strain update**

The Green 33 (A2) strain that was first observed in Holland and subsequently recorded in East Anglia does not appear to have increased in prevalence.

The two primary mating types of the pathogen *Phytophthora infestans* - termed A1 and A2 - can sexually reproduce in plant tissue. When this happens, they generate oospores which enter the soil when plants that have succumbed to infection rot down. These oospores remain viable for several years and, in the presence of a host plant, germinate to form sporangia which re-starts the life-cycle. Despite the prevalence of the A1 and A2 mating types in the UK, the incidence of oospore-borne blight outbreaks remains very low. This is in large part due to extended rotations and mindful hygiene. In the absence of a susceptible crop the viability of dormant oospores declines and the reduced inoculum decreases disease risk. Also, the dominant Pink 6 (A1) and Blue 13 (A2) lineages, although fit and aggressive in their own right, are genetically weak parental strains and do not generate high numbers of viable oospores. With Pink 6 and Blue 13 strains, infection can occur down to as low as 6°C and, whilst 11 or more hours of high humidity is optimal for infection, significant infection occurs with periods of only six to eight hours.

Increasingly these pathogens are becoming more aggressive, require shorter infection windows and are able to move through life cycle stages more rapidly which makes them more difficult to manage. Syngenta has therefore launched a new BlightCast warning, tailored to focus on infections now typically occurring earlier in the season at cooler temperatures.







## **#BlightCast**

The BlightCast five-day blight forecasting service now features a 'New Criteria' forecast, alongside a traditional Smith Period forecast. The 'New Criteria' pinpoints forecast temperature to hit over 8°C and more than 11 hours at 90% humidity over two consecutive days to trigger a Blight Period, or a Near Miss where conditions occur for a shorter period.

### **Products:**

REVUS