

A story of powdery scab in 2007

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Seed potato crop south of Aberdeen



- Before 2001 no previous knowledge of potatoes being grown
- Potato crop in 2001 (Estima – powdery scab resistance rating of 3 = susceptible)
- Crop in 2001 had no powdery scab and was of excellent quality
- Crop in the same field in 2007 was variety Estima (because previous crop was so good!)
- Planted mid-April
- Stony field with sandy silt loam soil type
- Crop was harvested on 27 August when I was asked to visit

Disaster!

- 90% tubers with powdery scab
- Average surface area infected >20%
- 7 – 15% tuber blight
- Hardly worth the cost of harvesting



Why the problem?

Could it have been predicted?



- Weather pattern
 - Very hot & very dry April
 - Cooler May but only average rainfall
 - June & July - 2x normal rainfall
- Was infection just a result of the rainfall?
 - During early period of crop growth the soil was never saturated = little multiplication in roots
 - However, saturated soils would have occurred at tuber initiation

Why the problem?

Could it have been predicted?



- Apparent absence of powdery scab in previous crop suggested little or no risk
- But the crop in 2007 was full of Estima groundkeepers and the grower spent a lot of money roguing the seed crop to ensure it reached certification standard
- Had the volunteers increased a low level of inoculum to a high level between 2001 and 2007?
- A soil diagnostic test would have identified the level of contamination and indicated risk
- Looking for volunteers in preceding crops in 2005 or 2006 might have indicated a risk of powdery scab