

STORAGE BULLETIN

VARIETY CHECK

New service for industry from SBCSR

For the forthcoming storage season, SBCSR is pleased to introduce a new potato storage service called **VarietyCheck**✓,

With new regulations on acrylamide and fewer/less sprout suppressants it is more important than ever to get the right storage conditions for your variety of choice.. For processing crops, selecting a variety with long dormancy and an ability to store at lower temperature without sweetening helps your customers overcome these challenges. Similarly, for fresh pack varieties, maintaining appearance and avoiding blackheart are high on markets' wish-lists.

VarietyCheck✓ will use established methods to objectively assess your new varieties or potato stocks under defined and accurately controlled storage conditions (see table below). Choose from processing or fresh pack storage options. The cost of this service is £1,250 per variety/stock for the first stock (excluding VAT). Discounts are available for multiple submissions.

	Processing	Fresh pack
Storage temperatures	7, 8.5 and 10°C	2, 3.5 and 5°C
Storage durations	3, 6 and 9 months	3, 6 and 9 months
Standard assessment package	Dry matter, dormancy, processing quality	Dry matter, dormancy, blemish disease, blackheart susceptibility
Optional assessments	Respiration rate, Sugars and asparagine (for acrylamide prediction)	

Bespoke storage is also possible at additional cost, subject to availability. Please contact **Adrian Briddon on 01406 359412** to discuss your **VarietyCheck**✓ requirements.

BLACK DOT WOES

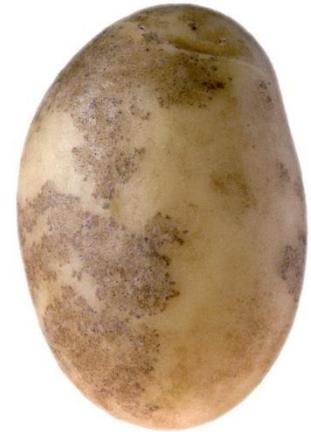
Lessons on blemish disease to reduce future risk

Black dot has been a particular scourge of fresh market crops this season. Delayed harvesting has encouraged disease spread, increasing the crop's exposure to infected soil and high levels of moisture. Here's a reminder of why the problem has been so widespread.

Black dot is a disease caused by *Colletotrichum coccodes*. There is evidence that *microsclerotia* (resting bodies) of the fungus can survive for many years in soil due, in part, to alternate hosts. It can infect weeds such as nettle, field bindweed and shepherd's purse. Survival is further enhanced by the presence of potato volunteers.

Black dot can be both seed and soil-borne. Although seed-borne infection can cause disease in progeny tubers, soil inoculum poses a greater threat. Soil contamination is the main source of disease in a progeny crop. Disease risk should be based on evaluation of seed infection and, importantly, soil contamination for which a soil test is available, visit <http://fera.co.uk>.

Disease development is difficult to assess during growth as there is a latent period between infection and symptom expression, when the true extent of the problem is less visible. Below-ground symptoms show once the crop starts to senesce, although there is little correlation with final disease on progeny tubers. Although the majority of pre-pack varieties are susceptible to black dot, there are some moderately resistant varieties – see <http://varieties.ahdb.org.uk/> From post-harvest and throughout storage, black dot levels tend to be higher if a crop has to be harvested later (i.e. after mid-October) as was common in 2017. However, the absolute date of harvest is less important than the length of time the crop is in the ground ('crop duration'). There is an advantage, in terms of black dot control, to keeping maincrop varieties in the ground for less than 130 days. As black dot is a disease favoured by wet and warm soil conditions, irrigation or high levels of summer rainfall tend to increase risk, as seen in 2017.



After harvest, assuming skins have adequately 'set', it is advisable to reduce the crop temperature as quickly as possible after harvest. Aim for at least 0.5°C pull-down per day to holding temperature. This rate may be higher if positive ventilation is available and can give control (Peters *et al.*, 2016). Whatever ventilation is available during pull-down it is important to ensure the crop is free from surface moisture if development is to be constrained.

At harvest, affected tuber skin may appear unblemished but, as the name implies, the tell-tale indicators of black dot are the tiny, jet-black microsclerotia that appear on the skin. Black dots are just visible to the naked eye or use a hand lens - a magnification of 10X is recommended. During storage these can turn an unsightly dark brown leading to market rejection.

Black dot is commonly confused with silver scurf (*Helminthosporium solani*) but silver scurf can be confirmed, again by using a hand lens to see short threads or bristles, called conidiophores. When black dot and silver scurf are seen together on potatoes there is less chance of confusion as silver scurf almost always looks more silvery in direct comparison. The two blemishes will co-exist on the same potato but rarely intermingle.

Find out more about black dot at <https://potatoes.ahdb.org.uk/gallery/potato-diseases>

Peters, J.C.; Harper, G.; Brierley, J.L.; Wale, S.J.; Hilton, A.; Gladders, P.; Lees, A.K.; Boonham, N.; Cunnington, A.C. (2016) [The effect of post-harvest storage conditions on the development of black dot \(*Colletotrichum coccodes*\) on potato in crops grown for different durations](#). Plant Pathology, **65**, 1484-1491.

STUDY TOUR DETAILS

[Sign up for our trip to the USA in July](#)

Further details are now available for our proposed trip to Washington and Idaho in July. A 12-day programme is planned, leaving the UK on Sunday 15th July and returning on Friday 27th

July (arriving Saturday 28th). The party will include Adrian Cunnington from SBCSR who will lead the tour. Provisional information is given below but further visits will be added.

Sun 15 July	Depart LHR	Fly London to Seattle on British Airways
Mon 16 July	Seattle, WA	Local farm visits
Tue 17 July	Burlington, WA	Local farm visits
Wed 18 July	Moses Lake/Othello, WA	Washington State Univ/ Washington Potato Commission
Thu 19 July	Warden/Pasco, WA	Basin Gold Potatoes (fresh market)
Fri 20 July	Caldwell, ID	JR Simplot (major processor) Tech Centre and Research Storage
Sat 21 July	Boise , ID	Local visits
Sun 22 July	Boise, ID	Leisure day/PAA evening reception
Mon 23 July	Boise, ID	Potato Association of America annual conference: opening day
Tue 24 July	Twin Falls, ID	Kimberly Storage Research Ctr & local visits
Wed 25 July	Pocatello, ID	Local farm visits
Thu 26 July	Boise, ID	1-4 Group (agchem) & Gross Farms (seed)
Fri 27 July	Arrive LHR	Fly Seattle to London on BA (arrive 28 July)

Cost is £5600 per person for 12 days, for a minimum of 12 persons. This covers flights, bed & breakfast in good quality hotels, coach travel and conference fees, but excludes other meals, optional activities and insurance. There will be further savings of up to £600 per person if 18 people travel.

Deposits of £1000 per person are required by 30 April to secure places, with the full amount payable by 1 June 2018. Contact Emma Bates at emma.bates@ahdb.org.uk or call 01406 359419 for more details.

LAURA BOUVET JOINS SBCSR TEAM

New joint role with AgriTech East

We are delighted to announce that Laura Bouvet has been appointed Knowledge & Innovation Facilitator for AHDB and Agri-Tech East in a new joint role. Her work with AHDB will be focused around knowledge exchange activities undertaken by Sutton Bridge Crop Storage Research.

Laura will support a number of innovation projects with growers – drawing on her extensive knowledge of plant pathology, genomics and advanced breeding. Laura is currently finalising her PhD at the Genetics & Breeding Department of NIAB and is affiliated to the University of Cambridge. Laura also has key skills in communication and dissemination to industry.

For Agri-Tech East, Laura will be supporting and directing a number of farmer-led research projects. The organisation is currently coordinating an Innovative Farmer Field Lab looking at the best way to use digestate (a product of anaerobic digestion) as a fertiliser.

Dr Belinda Clarke, Director of Agri-Tech East, added: “We have seen significant appetite from farmers and growers to be involved in the direction and implementation of trials of new technologies. We are looking to expand our involvement in this area.

“Laura brings the latest knowledge of plant science with a hands-on enthusiasm for working in the field. We think this new combination will be appreciated by our members and AHDB levy payers and allow us to take forward a number of projects we have been discussing.”

Laura can be contacted at laura.bouvet@agritech-east.co.uk

STORAGE SNIPPETS

CIPC: no decision yet on future use

The industry is managing CIPC use in stores under new labels this season. They indicate lower dose rates and require adherence to Stewardship best practice (including No Fan, No Fog), ahead of the EU review of its use.



That EU review process is still ongoing and, although there has been the routine, precautionary publication by the World Trade Organisation of a 'Barriers to Trade' document at the end of March, the position remains that no decisions have yet been made by the Commission. The CIPC Task Force (a consortium of approval holders) have shown that an acceptable consumer risk assessment is possible and believe that CIPC merits renewal, based on the data submitted.

Dr Mike Storey, chairman of the CIPC Potato Industry Stewardship Group, stresses that Industry stakeholders in the UK and other Member States have been very active in emphasising the critical importance of CIPC. “In the UK we have continued our high level of stewardship, demonstrating industry commitment to minimise the risk of any MRL exceedance. This is working and there have been no MRL exceedances reported in the UK since February 2014”.

Acrylamide mitigation is now a legal requirement

Food businesses in the UK are now required to put in place practical steps to manage acrylamide within their food safety management systems under new EU legislation which came into force on 11 April 2018.

See the [Food Standards Agency](http://www.foodstandards.gov.uk) website for more information.

Key role for new SBCSR partner

Following on from our news about Laura Bouvet above, we'd like to offer congratulations to Dr Belinda Clarke, Director of AgriTech East, who has been appointed to the BBSRC Council, part of the newly-formed UK Research and Innovation Board. The Council's duties, working on biosciences research, include:

- Leadership of the discipline area/fields of activity
- Ensuring the future of skilled specialists, researchers, scientists essential to the sustainability of the UK's research and innovation capacity
- Engaging with the biosciences community to develop ideas, raise awareness and disseminate strategic outputs

Further approval for 1,4 DMN in Europe

DormFresh has announced the German authorities' [approval](#) of 1,4SIGHT®, its sprout suppressant/dormancy enhancer containing 1,4 dimethyl naphthalene (DMN). Germany is the latest country in Europe to grant approval following on from the Netherlands, France, Belgium and Austria. Unfortunately, UK clearance is not expected in the near future.

Resistance in Norway rats has spread

The most severe form of anticoagulant resistance identified in Norway rats has spread right across the whole of central southern England, affecting the most widely-used poison baits, according to a new report.

The resistance affects the efficacy of first generation and some second generation (bromadiolone and difenacoum) rodenticides used to target the Norway rat, which is the only problematic rat species found on farms in the UK. Due to restricted sampling used in the monitoring work and the movement of rats in the UK, all farmers need to take the threats from resistance seriously.

Further details available at <https://cereals.ahdb.org.uk/press/2018/february/05/resistance-in-norway-rats-has-spread.aspx>

FORTHCOMING EVENTS

Details of AHDB events, including our Strategic Potato Farms are available on our Events Page at <http://potatoes.ahdb.org.uk/events>

20 June:

Joint event AgriTech East/AHDB

Post-Harvest Technologies: Innovations to Keep Crops Clean, Cool and (High) Quality Sutton Bridge CSR, Lincolnshire, PE12 9YD. 2.30 – 5.30pm.

Afternoon event with speakers including Adrian Cunnington (Head of Crop Storage Research, AHDB); Tim Dudfield (Director, Farm Electronics) and Anthony Yousefian (UK Director, 30 MHz). Register for this event by emailing: becky.dodds@agritech-east.co.uk

9 August:

Potatoes in Practice: James Hutton Institute, AHDB Potatoes, SRUC and Agrii Balruddery Farm, Dundee, 8.30am – 4.30pm. Exhibitor space available <http://www.hutton.ac.uk/events/potatoes-practice-2018>

30 August:

AHDB Storage in Scotland Day. Save the date: further details to follow.

Agriculture & Horticulture Development Board, Stoneleigh Park, Kenilworth, CV8 2TL.

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