

Seed potatoes from Great Britain

High health
High quality



varieties.ahdb.org.uk



The Benefits of Seed Potatoes from Great Britain

Seed potato production in GB accounts for

14%

of GB's croppable (planted) potato area



GB has around

200

registered seed growers



£1m

The amount spent on new R&D projects each year by AHDB

Foreword

Healthy, high quality seed potatoes are essential for growing vigorous, high-yielding and marketable potato crops. Seed potatoes produced in Great Britain (GB) are considered to be some of the best in the world, thanks to dedicated growers, supported by expert scientists, breeders and inspectors who ensure that Britain's specialist seed potato industry is a world leader.

Seed potato production in Great Britain is a highly specialised and innovative industry. It accounts for 14% of GB's croppable (planted) potato area, produced by a group of around 300 registered seed growers. High-grade GB seed is grown in the EU Community Grade, high-health status region of the north of England and Scotland and is worth around £100m to the British economy.

Investment in plant health and agronomy research means British seed remains high-health, with British breeders developing and supplying varieties that meet and exceed customer specifications and changing growing conditions.

Research and development (R&D) is crucial to the sustainability of GB's potato industry. AHDB Potatoes, a division of the Agriculture and Horticulture Development Board (AHDB), commissions around £1m per annum of new R&D projects, including a 5-yr project aiming to quantify the effects of seed multiplication systems and storage practices on ware production, with a total £600K investment (2016-2021).

AHDB Potatoes has worked with GB's key plant health regulatory authorities, Science and Advice for Scottish Agriculture (SASA) and the Animal and Plant Health Agency (APHA) on this booklet, which demonstrates the dedication and expertise that goes into producing seed potatoes in Britain and the reasons behind the continuing success story of this specialist industry.



Seed is inspected, certified and regulated by GB's official plant health authorities, ensuring complete traceability and quality assurance.

High health – High quality

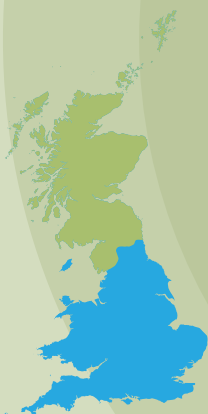
Britain's cool, damp climate is disadvantageous to aphid development and results in lower virus pressure than observed in other European countries. The GB seed potato system is also free of the notifiable bacterial diseases Brown Rot and Ring Rot, which sporadically occur in mainland Europe.

GB's seed growing region encompasses the north and east of Scotland and north eastern England.

The seed growing areas of Scotland, Cumbria and Northumberland (in Northern England) have been designated an EU Community Grade region, with stricter health standards than elsewhere in the EU.

Only seed potatoes classified at Community Grade can be grown in Scotland and certain parts of Northern England. Community Grade seed potatoes must meet additional requirements to those specified in the Seed Potato Marketing Directive. Plant health legislation also helps to safeguard against the introduction of pathogens which are present in parts of mainland Europe, such as Ring Rot, Brown Rot and Potato Spindle Tuber Viroid. Imports of seed potatoes from outside the EU (other than Switzerland) are permitted only through quarantine units.

British high
grade seed
potato region



All stages of seed potato production in Scotland, Wales and England are managed and administered under the Seed Potato Classification Scheme, by SASA and APHA, who oversee official inspection and certification of GB seed crops and are the responsible authorities for seed potato health.

Seed from Britain is grown in de-stoned land and stored in temperature-controlled seed stores. This reduces skin damage and the risk of infection. British exporters are able to produce seed of varying grade, size and physiological age in order to meet customers' specific requirements. Seed can also be supplied by tuber count or to meet re-plantable area requirements.



How seed is produced

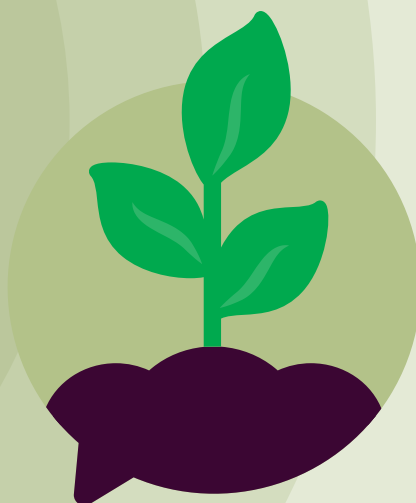
All seed of British origin is produced from disease-free nuclear stock (micro plants), grown in sterile conditions in government laboratories at SASA, in Edinburgh, Scotland. These micro plants are subject to stringent testing to ensure they are free from harmful, pathogenic organisms and are true to varietal type.

These micro-plants are then planted on a large scale to produce mini-tubers in government-licensed micro-propagation facilities, of which there are only six in the whole of Great Britain. The vast majority of mini-tubers are grown on in sterile peat in sealed, temperature-controlled greenhouses and poly-tunnels, with a limited number of mini-tubers being produced using the hydroponic or aeroponic systems.

At this stage, the mini-tubers are classed as Pre-Basic TC (tissue culture) which are then released to officially approved growers for cultivation in the field and then classed as Pre-Basic (PB).

This mini-tuber production process is carried out under strict phyto-sanitary conditions, which enables British seed to have the best, disease-free start.

SASA safeguards around 800 distinct varieties of potato in the form of microplants which constitute the national potato collection.



Seed classification and governance

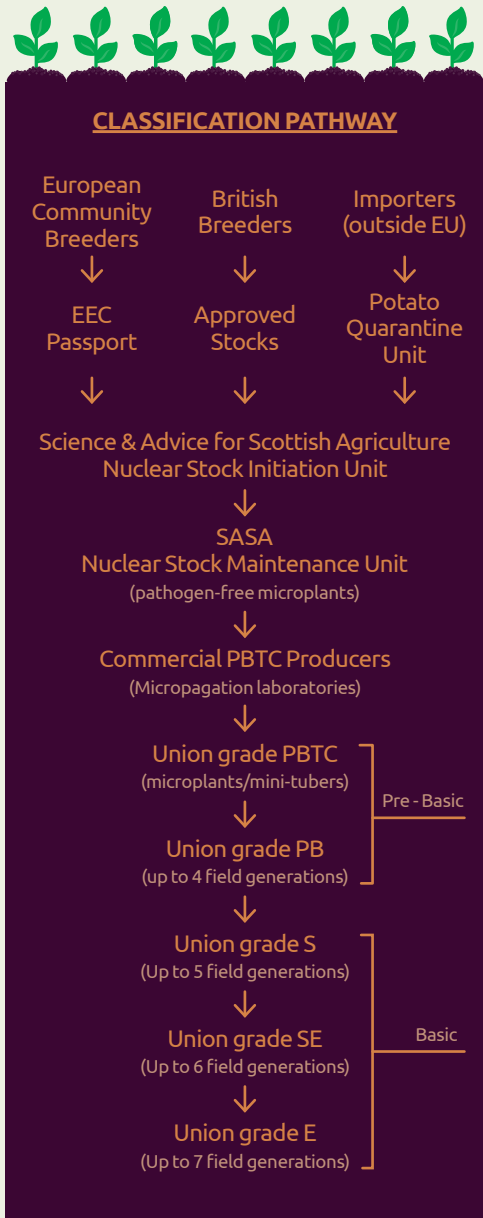


A key reason why British seed potatoes retain their high-health status is the stringent Seed Potato Classification Scheme (SPCS) imposed upon the entire seed production chain, right up to the point of sale to the seed customers and growers.

The SPCS is administered by SASA in Scotland, and by APHA in England and Wales and these two authorities work together to ensure seed crops are multiplied under the official classification for each generation of seed. There is an official limit to the number of generations that can be produced at each class, ensuring older seed stocks are flushed out each year. Minimum health standards for each seed class are maintained by government inspections of each generation of the growing crop.

‘MYSPUDS’ DATABASE

SASA hosts the ‘MySPUDS’ database, which gives producers and growers of Scottish seed potatoes the ability to monitor their crops as they proceed through the Scottish Seed Potato Classification Scheme (SPCS). The database allows both officials and growers the ability to quickly check the status of their crops, to verify crop traceability and find related stocks. ‘MySPUDS’ is a powerful tool to assist in the maintenance of the overall health of the national potato industry.



Testing, Certification and Traceability



Tuber samples are officially checked for pests, diseases, damage and defects before they can be marketed



All British seed potatoes meet rigorous standards set by the EU and the United Nations Economic Commission for Europe (UNECE). The nuclear stock from which all seed is multiplied is disease-free. The long crop rotations between seed planting and limited field generations (which restrict opportunity for ingress of diseases) ensure continued high health of the seed.

- Official seed inspectors maintain rigorous standards for seed certification. This is achieved by a strict regime of official testing of soil for PCN (Potato Cyst Nematode) and inspection of growing crop and tubers.
- British seed potatoes can only be planted in fields free from PCN. Potato Wart Disease has never been recorded in British seed-producing land and devastating diseases present in parts of the European mainland – Brown Rot and Ring Rot – have also never been found in potatoes produced from British seed.
- Nothing is left to chance with British seed! Tuber samples are officially checked for pests, diseases, damage and defects before they can be marketed. Phyto-sanitary certificates must be issued for seed export consignments destined for non-EU countries. Plant passports (the seed certification label) are issued for seed moved within the EU. To ensure seed health is not compromised at any stage, all tuber consignments must be packed in their final containers and sealed with official labels before inspection. The official label confirms the identity and class of the consignment, including the crop identification number which gives full traceability for all British seed. All British seed can be traced back to the producer and the farm on which it was grown.



All British seed can be traced back to the producer and the farm on which it was grown

Potato Varieties and Breeding Expertise

EXPORT

One of the many benefits of British seed is the huge range of varieties that are available, bred for specific growing conditions, regions, markets and end-products. There is a long, proud history of potato science and breeding in Britain which enables modern-day breeders to utilise over 100 years of breeding science, knowledge and heritage to produce varieties that address the challenges that growers around the world face today.

Access to improved potato cultivars with resistance to pests and diseases and superior quality attributes is essential for the continuing development of the thriving potato breeding industry in GB. British variety breeders have ready access to some of the world's most advanced potato breeding research capabilities, which ensures continued development of robust and innovative scientific breeding methods and successful varieties.

Varieties developed and produced in GB help growers produce crops resistant to key diseases and pests and are suitable for widely differing climatic conditions, with varieties suitable for table, pre-pack, crisping and processing.

Variety information online

A useful source of practical information on British varieties is the Potato Variety Database. Supported by AHDB Potatoes and hosted by SASA, this free online database provides summary information on a huge range of commercially available varieties which have been independently tested for resistance to key pests and diseases. The database also provides high quality images of tubers, foliage and flowers, plus weblinks to breeders (for controlled varieties) and to the wider seed supply network for 'free' varieties (these are varieties that are no longer subject to breeders' intellectual property rights, such as Maris Piper or King Edward).

British certified varieties. For more information visit: varieties.ahdb.org.uk



Seed potato exports

GB seed is grown worldwide

Seed export is an important sector of the British potato industry. Export tonnages from Britain have risen by around 30% in the last ten years, and seed exports now generate approximately £42m income per annum for Britain's potato industry and for Britain.

Britain exports seed to around 50 countries worldwide. The export season begins in October, with seed being harvested, graded, inspected then certified for export in containers that are sealed and labelled for shipping overseas.

AHDB Potatoes' seed and export team works closely with SASA, APHA and industry on a range of official, technical and advisory issues concerning seed and seed exports, with the overall aim of facilitating the export of British seed potatoes.

potato.org.uk/seed-exports



Working with overseas customers and markets

Like any high quality product, the benefits of seed from Britain need to be communicated and promoted to target markets and customers – both new and existing.

- AHDB Potatoes works with SASA (Scottish Government) and with UK's Department of International Trade through embassies and consulates to liaise with overseas plant health authorities on an official government-to-government level in order to develop long-term contact with authorities in importing countries. This work helps to influence plant health and seed import policies in these countries and allows for discussion and resolution of any specific plant health and technical issues that may occur.
- AHDB Potatoes and SASA facilitate official inward and outward missions with key markets, both existing and new. Inward missions allow overseas plant health officials from importing countries to visit AHDB Potatoes and the SASA plant health facilities and see how British seed is produced at first hand. Visitors are taken to micro-plant laboratories and mini-tuber greenhouses. Depending on the season, visitors see seed crops in the field and can meet seed breeders and growers on site to observe grading, handling and inspection of seed for exports. Outward missions enable AHDB Potatoes and SASA plant health officials to visit their counterparts in importing countries to discuss import conditions and, if appropriate, they can observe and advise on inspection procedures in situ or seed consignments arriving in ports and facilities.
- British seed is promoted at overseas trade events and via a technical e-newsletter 'World Service', translated and issued worldwide potatoes.ahdb.org.uk/knowledge-hub/newsletters/world-service
- AHDB Potatoes promotes the seed quality assurance scheme 'Safe Haven' and the online Potato Variety Database (varieties.ahdb.org.uk) and works continually with industry and officials to maintain the high-health and good reputation of British seed potatoes.



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A Safe Haven for safe seed

The health of Britain's national seed potato crop is fundamental to the sustainability of the GB potato industry. Therefore, GB seed is protected from pests and pathogens which, if allowed to enter the British seed supply chain, could not be eradicated and would harm the entire British potato supply chain. So we look after our seed very carefully.

To provide an extra level of bio-security, the British seed industry established the Safe Haven certification scheme in 2004 to minimise the risk of infection from Ring Rot. This scheme also provides protection against other bacterial diseases of potatoes such as Brown Rot, Dickeya and soil-borne pests such as Root Knot Nematode.

Covering the majority of GB seed production, the Safe Haven scheme requires its members to produce seed employing robust and practical industry standards for seed hygiene and handling, which protect seed from all potential points of infection. Safe Haven members are audited annually to ensure compliance.

The seed supply chain in Great Britain is free from Ring Rot. AHDB Potatoes continues to support seed health protection measures such as Safe Haven and works alongside GB's plant health authorities and industry to protect our national seed crop.

AHDB Potatoes collaborates with industry to help protect British seed. If you want to know more about British seed, we would like to hear from you.

potato.org.uk/seed-and-exports

potato.org.uk/growing/plant-health/safe-haven



Why choose British seed?

This booklet provides a general overview of British seed – how it is initiated, grown, protected and inspected before it goes to customers – the growers and importers.

British seed is produced by a world-leading potato industry in Great Britain, so customers of British seed can be confident that they are buying and growing seed that has been produced by experts under the best possible conditions.

Growers need to use healthy seed to ensure the best possible crop. British seed and advanced variety availability has been helping growers around the world for decades to produce high-vigour, healthy and marketable crops.

The British potato industry continues to invest in plant health and agronomy research to ensure that not only our industry remains world-leading but also that the GB seed industry continues to produce the best possible seed potatoes.

Need more information?



- For general advice about British seed: contact AHDB Potatoes on telephone +44 (0) 131 297 7460 and varieties.ahdb.org.uk
- For seed health and classification information: Scotland, contact SASA on telephone +44 (0) 131 244 6346 and at sasa.gov.uk/seed-ware-potatoes/contacts-potato-branch
England and Wales, contact APHA on telephone +44 (0) 1904 405138 and at gov.uk/guidance/the-seed-potato-classification-scheme
- For British certified varieties and breeders: visit varieties.ahdb.org.uk





Contacts and useful links

- **AHDB Potatoes**
Tel: +44 (0)131 297 7460
potato.org.uk/seed
- **Potato Variety Database**
varieties.ahdb.org.uk
- **Safe Haven**
potatoes.ahdb.org.uk/seed-exports/safe-haven-certification-scheme or call
AHDB Potatoes on +44 (0)131 297 7460
for a printed brochure.
- **SASA's online information on seed and ware potatoes**
sasa.gov.uk/seed-ware-potatoes
- **APHA online information on plant health**
gov.uk/guidance/the-seed-potato-classification-scheme
- **GB potato crops can be found at**
Scotland: sasa.gov.uk/spcs-register
England and Wales: gov.uk/guidance/the-seed-potato-classification-scheme



GB's specialist early-generation seed producers, the Pre-Basic Growers Association (PBGA)



Animal &
Plant Health
Agency

This booklet was produced by AHDB Potatoes, a part of the Agriculture and Horticulture Development Board (AHDB). AHDB Potatoes exists to support the British potato industry by funding scientific research and providing technical information to support British potato growers, and by driving consumer demand for potatoes through high-profile, year-round marketing campaigns. **AHDB Potatoes**, Agriculture and Horticulture Development Board, Stoneleigh Park, Kenilworth, Warwickshire CV8 2TL. © Agriculture and Horticulture Development Board 2016. All rights reserved.

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