

Berry Genetic Resources Conservation and Utilisation in the UK

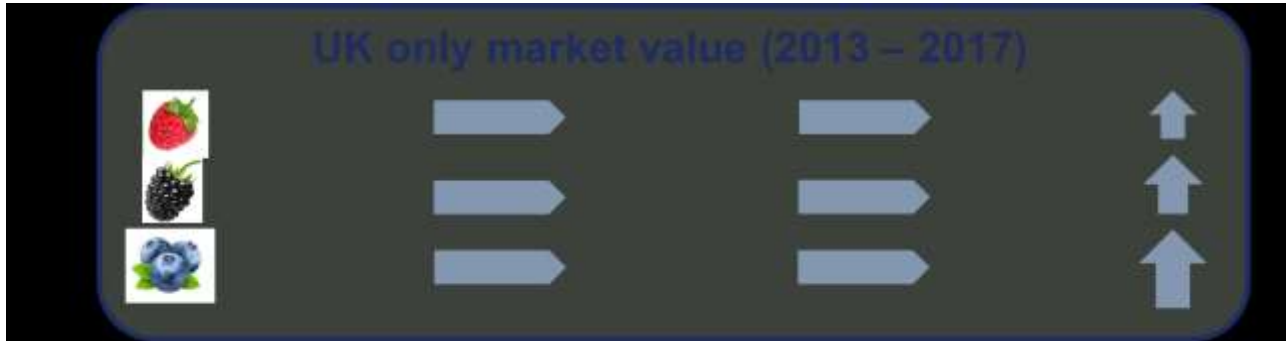
F Fernández Fernández
NIAB EMR

UK berries



UK berry market

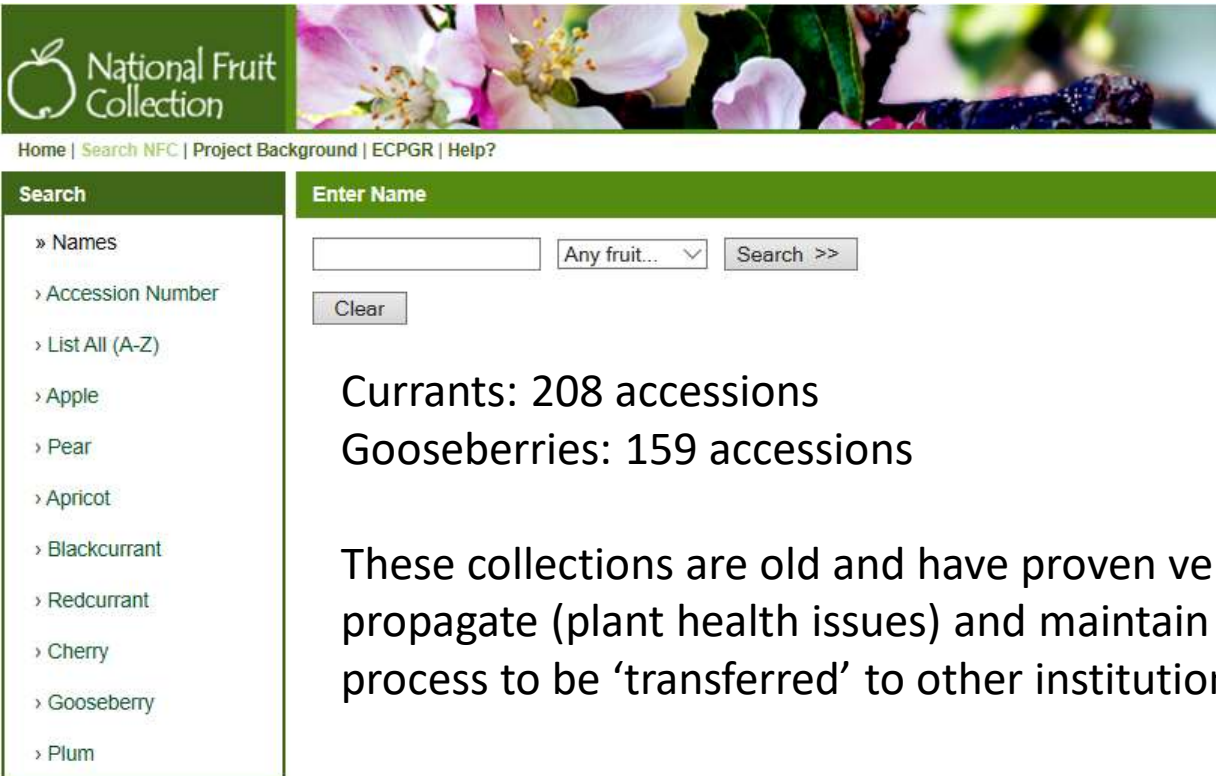
- Home grown: > £530M
- Imported: > £590M
- Strawberry is largest segment of this market £455 but growth in volume and value is slowing down



- Imports, primarily during the 'off-season' (Nov-May) have been shown to maintain 'customer loyalty' to berry sales driving sales up in the UK season

Conservation of Berry PGR in the UK

- National Fruit Collections (<http://www.nationalfruitcollection.org.uk/search.php>)



The screenshot shows the National Fruit Collection website. At the top left is the logo with an apple icon and the text 'National Fruit Collection'. To the right is a banner image of pink cherry blossoms. Below the banner is a navigation menu with links: 'Home | Search NFC | Project Background | ECPGR | Help?'. The main content area has a green header 'Enter Name' and a search form with an input field, a dropdown menu showing 'Any fruit...', and a 'Search >>' button. Below the search form is a 'Clear' button. On the left side, there is a sidebar menu with the following items: '» Names', '> Accession Number', '> List All (A-Z)', '> Apple', '> Pear', '> Apricot', '> Blackcurrant', '> Redcurrant', '> Cherry', '> Gooseberry', and '> Plum'. The main content area displays the search results for 'Currants: 208 accessions' and 'Gooseberries: 159 accessions'. Below this, a paragraph states: 'These collections are old and have proven very difficult to propagate (plant health issues) and maintain – in the process to be ‘transferred’ to other institutions'.

Conservation of Berry PGR in the UK

- Research Institutes:
 - NIAB EMR (formerly EMR) in Kent:
 - Breeder's collections:
 - Not fixed; not (fully) open; mainly characterised for agronomic/breeding performance; variable health status
 - Fragaria, Rubus, Vaccinium and Lonicera

NIAB EMR

- Part of the NIAB group since Feb 2016
- Private non-for profit research organisation
- Cover the space from fundamental to applied research in horticultural (mainly fruit) crops
- Going through a period of financial stability and consistent growth
- Much of this growth in generated from commercial breeding and industry funded projects

Horticultural Research Departments

Genetics, Genomics
and Breeding



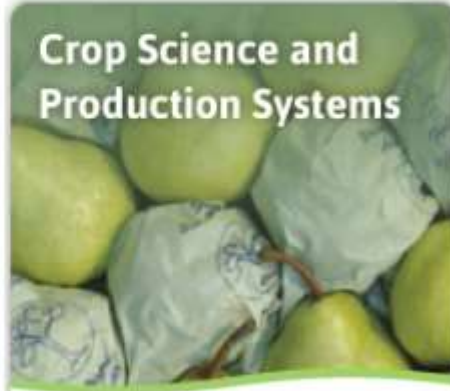
[View](#)

Pest and Pathogen
Ecology



[View](#)

Crop Science and
Production Systems

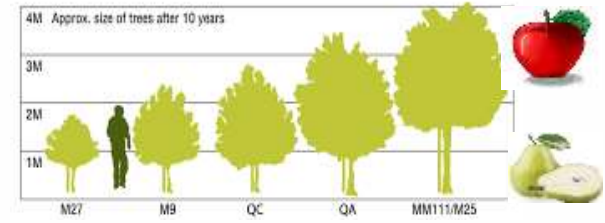


[View](#)

NIAB EMR – current breeding programmes



x2



Conservation of Berry PGR in the UK

- Research Institutes:
 - NIAB EMR (formerly EMR) in Kent:
 - Breeder's collections:
 - Not fixed; not (fully) open; mainly characterised for agronomic/breeding performance; variable health status
 - Fragaria, Rubus, Vaccinium and Lonicera
 - JHI (formerly SCRI) in Scotland:
 - Breeder's collections
 - Raspberry, blackcurrant, blackberry, redcurrant and gooseberry
 - <https://www.hutton.ac.uk/research/facilities/rubus-and-ribes-germplasm-collections>

Conservation of Berry PGR in the UK



- Other (private) collections:
<https://www.plantheritage.org.uk/national-plant-collections/>

Rubus spp.

Mr B Clarke
Hampshire

Description
NC dispersed through 5 acre woodland, contained tender species displayed in late spring and summer only.

Contact
Mr B Clarke

Address
St Athens
Chapel Close
Houghton
Hampshire
SO20 6LS

Telephone
[07528 830060](tel:07528830060)

E-mail
bramblebooby70@tiscali.net

Statistics
204 species
204 taxa

Opening Times
By appt.

Entry
Free

Directions
Close to Romsey - location details given with appt.



Rubus fruticosus 'Polaris' © N. Clarke

Fragaria vesca

Mrs Dianne Nichol-Brown
Co. Durham

Description
Series of garden rooms in different aspects with cottage & gravel gardens & alpine area. Open days in aid of Red Cross.

Contact
Mrs D Nichol-Brown

Address
Potemkinum Nursery
28 Sunningdale Terrace
Toseland Garage
Toseland Station
Co Durham
TD2 6HT

Telephone
[01207 380020](tel:01207380020)

E-mail
diane@potemkinum.co.uk

Website
www.potemkinum.co.uk

Statistics
7 species
16 cultivars
18 taxa

Opening Times
By appt. or Bank Holidays (Sun) in May and Aug
2-5pm

Entry
£2 to Plant Heritage (Red Cross)

Directions
10 miles SE of Durham City, between A174 & A16
S on B1275



Fragaria vesca 'Impatiens'

Vaccinium

Greenscombe Garden Trust
Somerset

Description
7.1 acre woodland garden overlooking fields & sea, containing 4 NCs. NC organized systematically, forming integral part of garden. Partial disaster victim.

Contact
Greenscombe Garden Trust

Address
Saxelcombe
Rushin
Somerset
TA26 8NU

Telephone
[01454 36444](tel:0145436444)

E-mail
info@greenscombe.org

Website
www.greenscombe.org.uk

Statistics
41 species
41 cultivars

Opening Times
Every May 2-6pm April-July

Entry
£7, under 16 £4

Directions

Take B of from Polden to Polden Hill. The forest is to Greenscombe is 200m, about 1/2 mile SW of Polden.



Sambucus

Ms E Brown
Worcestershire

Description
Planted in a field by side of track at nursery. Partial restricted access. Showing excellent for leafy

Contact
Ms E Brown

Address
Bowers Nursery
Sains Lane
Dibden
Worcestershire
WR11 8HT

Telephone
[01856 47314](tel:0185647314)

E-mail
info@bgn.net

Website
www.bgn.net

Statistics
16 taxa

Opening Times
Sun-Sun 10am-5pm

Entry
Free



Sambucus racemosa 'Black Lace' © E. Brown

Conservation of Berry PGR in the UK

- Other (private) collections:
 - RHS (Wisley):
 - Currants and Gooseberries
 - Cambridge University Botanic Garden:
 - Ribes and hybrids
 - Kew Botanic Garden
 - ...

Main challenges for conservation and utilization

- Funding
- Lack of coordination in approach:
 - Commercial breeding vs volunteer/charitable objectives
 - Botanical (ornamental) vs breeding value
 - Lack of coordinated documentation and access
- Technical challenges:
 - Need for (frequent) re-propagation
 - Field / Potted / TC collections (none are perfect!)
 - Plant health
 - Trueness to type

ECPGR Berry Working Group

- Maintain and expand European links for R&D
- Increase NIAB EMR collections (following 1990 – 2015 cuts)
- Concerns about germplasm UK-EU movement post-Brexit