

The Horticulturist



Planting for pollinators

PLUS Seed potatoes | Growing for the future | Kairaku-en Japan | Horticultural training | AGM and YHoY updates

CONTENTS



Volume 29 No. 2 | Summer 2020

IN THIS ISSUE

4 Novel ways to produce seed potatoes

Jenny Durrin sets out the University of Idaho's ground-breaking programme of hydroponic production of seed potatoes.

8 Planting for pollinators

Lucy Witter highlights the work that she and colleagues are carrying out at the National Botanic Garden of Wales.

12 Growing for the future

Dr Bill Parker summarises some of the opportunities and challenges associated with realising the current and future potential of plant science in food production.

16 Training for the future

Sam Agnew looks back on his experience as Horticultural Training Advisor for East Anglia with the Agricultural Training Board.

18 Kairaku-en

To use his CIH YHoY travel bursary Richard Moore journeyed to Japan to discover more about Kairaku-en.

22 Institute news: lockdown lives

27 Obituaries

28 Branch reports

29 Book review

30 Horticultural research

Edible crops

FROM THE PRESIDENT

The future health and well-being of the nation

The holiday season is upon us and horticulture up and down the land has made a recovery of sorts following the lift on people movement and the opening of garden centres and nurseries.

Garden centre sales are recovering, growing plans for hardy ornamental nursery stock growers are ratcheting up in anticipation of a Benelux/Brexit import slowdown, suppliers are stocking up in advance of the current punitive import tariff on horticultural goods and food producers are trying to get their harvest in, against a background of an ever-reducing labour force.

Prominent gardens up and down the country are experiencing lower gate receipts due to the imposition of masks, sensitivity of people contact and the challenges of underlying health conditions facing the over the over-70s, who are regular garden-goers. Parks and green spaces on the other hand are either entirely packed or closed due to concerns re: over-crowding and the spread of Covid-19 and, regrettably, protected ornamental growers were unable to make up for the significant early season losses, reported in all the media channels. Let's hope that autumn sees a continued recovery in the health of the nation.

Horticultural education will also take on new formats come September with fewer students. Video conferencing, webinars and online tutorials will be featuring in all colleges and universities and will become the new norm. The Chartered Institute of Horticulture has been hugely involved in further education (FE) and higher education (HE) in horticultural education since its inception.

The loss of quality FE and in particular HE horticultural education is of great concern to this Chartered Institute. In the late 90s it was possible to enter six horticultural undergraduate choices in the UCAS application form and now none of those institutions offer undergraduate programmes in horticulture. It is patently obvious that a supportive review of FE and HE horticultural education is required by the CIH, as our colleges and universities need all the encouragement they can get.

The CIH will give this the highest priority in 2021 and will need your support!

Never before has the topic of food and non-food horticulture been more in the news. The UK and Ireland population desires healthy food that is seasonal and grown locally. Additionally, a healthy park and green space to roam, relax and enjoy recreational pursuits is required. Food and public green space have never been as high as they are in the current public consciousness, so we must harness this enthusiasm and convert it into a greater appreciation of the contribution of horticulture to well-being.

The continuing interest in food provenance and seasonality and the renewed interest in public green space has the potential to move all of horticulture up the political agenda in the coming years, so let's take this opportunity!

Gerald Bonner CHort FCIHort, President
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Cover Red-tailed bumblebee (*Bombus lapidarius*) on knapweed (*Centaurea nigra*).
(Photo: Natasha de Vere)

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Write for *The Horticulturist*

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Novel ways to produce seed potatoes

HYDROPONICS Jenny Durrin sets out the University of Idaho's ground-breaking programme of hydroponic production of seed potatoes from tissue culture.

The University of Idaho established itself among the leading nuclear seed production programmes by maintaining tissue culture lines and gearing production to serving commercial seed potato producers across North America and internationally. The university's greenhouse-based production system gave commercial producers and researchers a source of seed potatoes with the lowest risk of diseases by maintaining strict disease control protocols and testing in tissue culture and nuclear seed production.

Using the term 'nuclear' in the context of plant production can easily be misunderstood. The term actually refers to the cell nucleus and to seed potatoes that originate from tissue culture lines.

Small stem node cuttings from plants grown in tissue culture are used to create individual plantlets by using nutrients including sugar, vitamins and minerals to encourage these plant pieces to form roots in agar plates. The plantlets are then planted into a variety of growing media to produce mini-tubers. These small potatoes are then planted in greenhouses or directly in fields to produce the first generation of seed potatoes.

The programme provides services to potato farmers and researchers in 12 or more countries most years including Canada, United Kingdom, The Netherlands, Australia, Japan, South Korea, China, Uruguay, Argentina and Ireland. Those services include shipping tiny plantlets on agar plates, producing small thumb-sized mini-tubers

and, uniquely, providing virus-cleanup services to provide disease-free tissue cultures. The laboratory ships 250,000 plantlets each year to seed potato growers and researchers.

The tissue culture that is at the heart of the university's seed potato programme provides the best way to ensure disease-free planting stock at the foundation of the state's certified seed structure. The potato germplasm lines are kept disease free by a process using the anti-viral drug ribavirin and heat treatment. The process typically takes six months to a year to complete.

Major production region

Established more than two decades ago, the University of Idaho programme became the