RHS Peat-Free Fellowship

Monitoring crop performance

Division of Science and Collections

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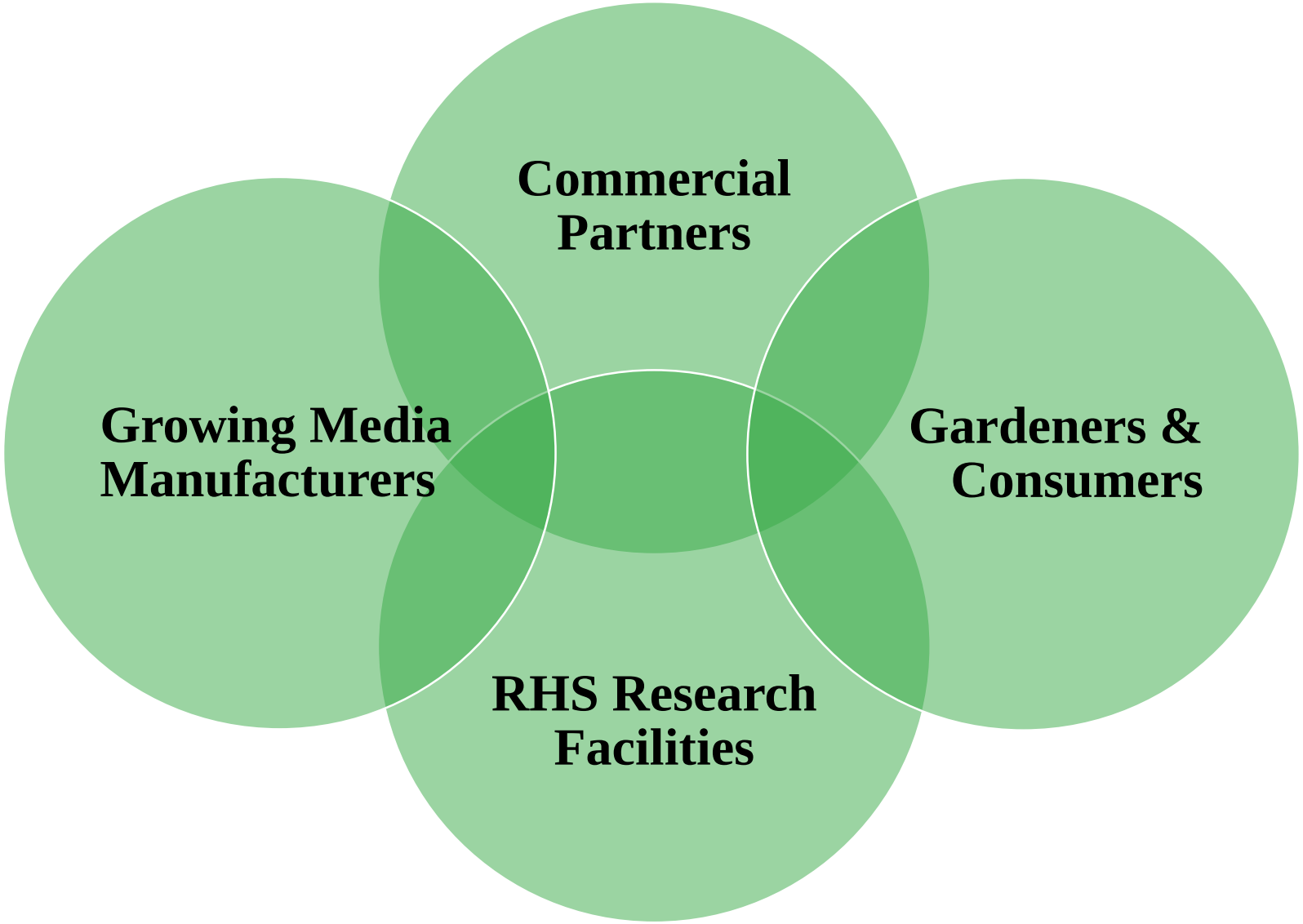
Project Partners and Collaborators

Department for Environment Food & Rural Affairs

fargro

GROWING MEDIA association



Allensmore Nurseries Ltd.

Hillier Nurseries

hills

Johnsons of Whixley Professional Nurserymen

Lovania Nurseries Ltd

the farplants group

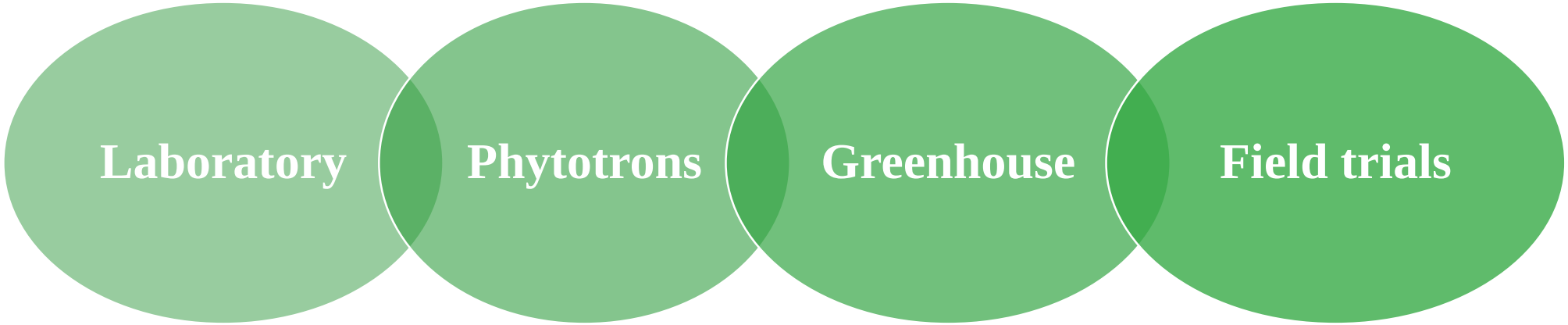
Vitacress

Volmary

Research Trials

To meet the practical requirements of the production system in which peat-free substrates are being utilized

RHS and Commercial partners



Interdisciplinary Research Approach

a. **Soil science** – characterization of growing media

b. **Horticulture** - plant growth, development, quantitative and qualitative aspects

c. **Plant physiology** - stress responses as influenced by peat-free substrates

d. **Sustainability** - environmental and ecological

e. **Economics** - the cost per volume of substrate, the frequency and amount of irrigation and nutrient requirements

Setting up Commercial-Scale Peat-Free Trials

Questions:

1. Key challenges
2. Aims/objectives
3. Plan of work/timeline

Things of consider:

1. Scale of the trials
   - No. of plant types/plant groups
   - No. of growing media
   - No. of plants
2. Season
3. Growing conditions

Key things which are essential:

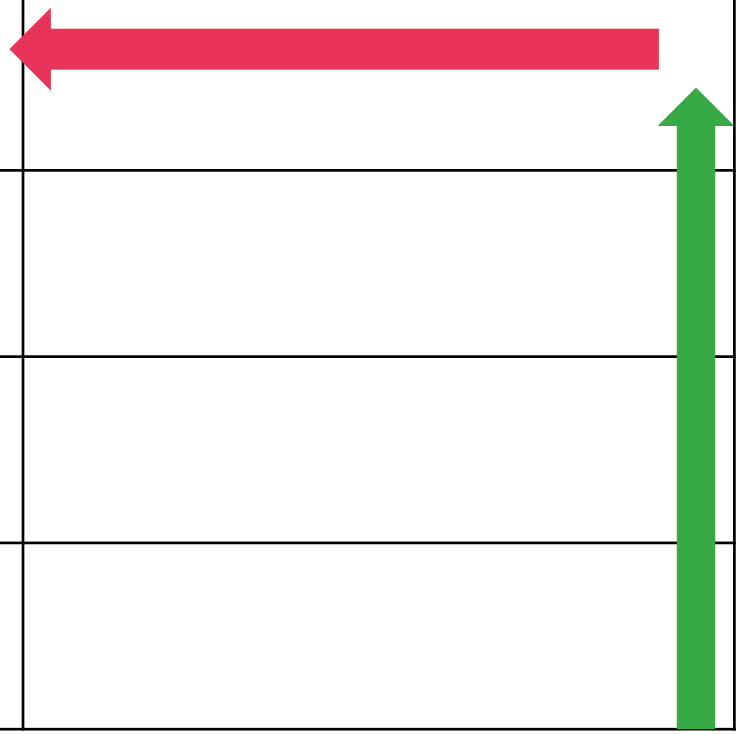
1. **Randomisation**
2. **Replication**
3. **Control**

Key Factors Influencing the Trials

1. Layout of the trial
2. The way trials are randomised and replicated
3. Control growing media
4. Growing conditions
5. Irrigation regimes
6. Nutritional load of each growing media
7. Planting time

Example Layout

REPLICATE 1		REPLICATE 2		REPLICATE 3
Control **(50 pots)**		Peat-Free 2 **(50 pots)**		
Peat-Free 1 **(50 pots)**		Peat-Free 3 **(50 pots)**		
Peat-Free 2 **(50 pots)**		**Control** **(50 pots)**		
Peat-Free 3 **(50 pots)**		Peat-Free 1 **(50 pots)**		



JOHNSONS
OF WHIXLEY
PROFESSIONAL NURSERYMEN

the farplants group

Trial Monitoring and Data Collection

- Growing media analysis: **Beginning and End**
- Temperature and Relative humidity
- Substrate properties: Moisture, EC and temperature: **Sensors – WET150, 30mhz**
- Morphological parameters: **Growth parameters**
- Commercial parameters: **Saleability/Marketability**

Fellowship Progress

Allensmore Nurseries Ltd.	hills	Hillier Nurseries	Johnsons of Whixley – Professional Nurserymen
Peat-Free Growing - Herbaceous Perennials	**Peat-Free House Plant Propagation**	**Peat-Free Ericaceous Trials**	**Peat-Free Growing** - Shrubs, Perennials and Landscape Plants
Lovania Nurseries Ltd	the farplants group	Vitacress	Volmary
Peat-Free Growing	**Peat-Free Propagation** - Herbs and Outdoor bedding plants	**Peat-Free production of culinary herbs**	**Peat-Free Propagation**

RHS Peat-Free Conference with Technical Workshops

Aims: To bring growers, growing media manufacturers and other key stakeholders together to discuss and share knowledge on peat-free and sustainable growing practices

Venue: Lindley Hall, 80 Vincent Square, London SW1P 2PB

Date: 20th November 2023

Transition to Peat-Free: Potential Peat-Free alternatives, Circular Economy, Sustainability and Productive Horticulture

#PeatFree

#UKgrown

Source: RHS

Reduce

Reuse

Recycle &

Reinvest

Thank you

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