John Innes Manufacturers Association

Technical Data Sheet No. 1

THE HISTORY OF JOHN INNES COMPOSTS

The John Innes range of loam-based composts has been widely used by gardeners for over 50 years. These notes summarise the history and development of John Innes Composts, and the reasons for their continuing popularity.

THE JOHN INNES NAME

The composts were developed at the John Innes Institute, named after one John Innes, a nineteenth century property and land dealer in the City of London. On his death in 1904 he bequeathed his fortune and estate to the improvement of horticulture by experiments and research. The result was the establishment of the John Innes Horticultural Research Institute initially at Merton in Surrey, but now located at Norwich.

THE DEVELOPMENT OF THE COMPOSTS

Before the introduction of John Innes Composts, gardeners generally used a different compost for each species of plant. Usually the soil was not sterilised or heat pasteurised and consequently plant seedlings were often attacked and destroyed by soil-borne diseases and insects. Also the plant foods being added to the traditional composts were usually unbalanced, causing the plants to be either too "soft" in their growth and liable to diseases, or very "hard" and slow growing.

In the 1930's two research workers at the John Innes Horticultural Institute, William Lawrence and John Newell, set out to overcome these problems and to formulate composts that would give consistently good and reliable results. After six years of experiments they determined the physical properties and nutrition necessary in composts to achieve optimum rates of plant growth. They also introduced methods of heat sterilising the soil that eliminated pests and diseases, but did not cause any checks to plant growth.

The result of this work was the introduction of two standard composts, one for seed sowing and one for potting. These "John Innes" composts revolutionised not only the ways in which composts were produced, but also the growing of plants in pots. Now, after being used very widely for over 50 years, the basic formulae remain the same - tried and tested and still popular amongst discerning gardeners for growing the best quality plants with the minimum of attention. Naturally, the plant nutrients have been updated to gain the benefits of improved fertiliser technology.

WHAT ARE JOHN INNES COMPOSTS?

John Innes Composts are a blend of carefully selected loam or topsoil, sphagnum moss peat, coarse sand or grit and fertilisers. The loam is screened and sterilised and then thoroughly mixed with the other ingredients in proportions designed to achieve the optimum air and water-holding capacity and nutrient content for different types and sizes of plants. The basic John Innes Composts are:-

- ***JOHN INNES SEED COMPOST*** - the traditional mix for sowing almost any type of seed, with sufficient nutrient for early development. May also be used for rooting soft cuttings.
- ***JOHN INNES POTTING COMPOST No.1*** - for pricking out or potting-up young seedlings or rooted cuttings. This composts has a carefully balanced nutrient content to suit most young plants.
- ***JOHN INNES POTTING COMPOST No.2*** - for general potting of most house plants and vegetable plants into medium size pots or boxes. Contains double the amount of nutrient in JI No 1 to suit established plants.
- ***JOHN INNES POTTING COMPOST No.3*** - a richer mixture for final re-potting of gross feeding vegetable plants and for mature foliage plants and shrubs in interior planters or outdoor containers.

John Innes Manufacturers Association
Horticulture House, 19 High Street, Theale, Reading, Berkshire, RG7 5AH
Tel: 0118 930 3132 Fax: 0118 932 3453 E-mail: john.innes@the-hta.org.uk Website: www.johninnes.info

THE HISTORY OF JOHN INNES COMPOSTS (continued)

WHAT ARE THE INGREDIENTS ?

The function of each of the ingredients in John Innes is briefly as follows:-

- ***LOAM*** - Loam is the most important ingredient in the compost as it provides the main "body" of the compost. It also forms the base of plant nutrition by supplying clay, which has a cation and anion exchange capacity, that is, it absorbs and releases plant nutrients as required. Loam also contains essential micro-elements and some organic matter which provides a slow release of nitrogen to the plant.
- ***PEAT*** - Sphagnum Moss Peat in the John Innes Compost increases the total porosity and improves both the aeration and the water-retaining capacity. Peat decomposes slowly into humus.
- ***SAND*** - The coarse sand or grit is used as a physical conditioner to allow excess water to drain from the compost and thus prevent water-logging. It also helps to provide stability for larger plants.
- ***FERTILISER*** - The compound fertiliser in John Innes Compost provides a wide spectrum of plant nutrients needed for balanced growth, including :-
    - NITROGEN - for top growth
    - PHOSPHATES - for root growth
    - POTASH - for flowering and fruiting
    - TRACE ELEMENTS - for colour and flavour

WHY USE JOHN INNES COMPOSTS ?

As John Innes Composts have been used by growers and gardeners for over 50 years, they have clearly stood the test of time, and they are still popular for the following reasons:-

- ***LOAM-BASED*** - John Innes Composts are loam-based - a natural medium for growing plants. Loam contains clay, humus and trace elements which provide a natural reserve of plant foods and also an excellent buffering capacity - so that it can cope with some degree of over- or under-feeding of the plants.
- ***AIR/WATER BALANCE*** - Loam, peat and coarse sand provide a good balance between the amount of water held by the compost and the amount of air space after it has drained. It is easier to achieve this when three main ingredients are utilised, than when the compost is made from only one material such as peat.
- ***EASY TO RE-WET*** - The loam and coarse grit content makes a John Innes Compost very easy to re-wet after drying out, compared with all-peat composts.
- ***NATURAL pH*** - The pH level of John Innes Composts is at the natural level for most plants, except the lime-hating varieties such as Azaleas, Heathers and Rhododendrons.
- ***HIGHER NUTRIENT LEVELS*** - Because of the loam content in John Innes Composts, the fertiliser levels can be increased to suit the vigour or growth rate of the plant, which would not be safe in peat-based composts.
- ***LONGER LASTING*** - John Innes Composts last for a longer time than soil-less composts before it becomes necessary to water and feed plants in pots or containers.
- ***GREATER TOLERANCE*** - With both short and long term fertiliser release, natural drainage and water retention, a John Innes Composts has greater tolerance and gives the amateur gardener better all round results than soil-less composts.

IN CONCLUSION:

John Innes Composts mean easier management and better plant growth particularly for:-

- Bedding plants and vegetable seedlings
- Tomatoes, cucumbers and melons
- House plants and interior planters
- Tubs, troughs, patio planters and window boxes.

NOTE: When buying John Innes Compost, look for the JIMA Seal of Approval on the bag - a guarantee of satisfaction!

J.I.M.A. IS AN ASSOCIATION OF INDEPENDENT JOHN INNES COMPOST PRODUCERS