

The Path to Better Plants

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The Danish Elite Plant Station produces healthy and true-to-type plant material, also called certified plant material, for commercial production of trees, shrubs, perennials, pot plants, and tree and soft fruits. The Danish Elite Plant Station was founded in 1980 by the Danish Association of Horticultural Producers and the Association of Danish Fruit Growers to meet a growing need for healthy and true-to-type plant material. The majority of products from the Danish Elite Plant Stations are labelled with the trademark Dafo, short for Dansk Forskning (Danish Science). This label serves as a guarantee for specific quality properties, variety trueness, and healthy plant material. More than 150 different taxa of Dafo landscape plants have been developed along with about 100 tree and soft fruit cultivars and 60 cultivars of pot plants.

THE LONG WAY

The Danish Elite Plant Station works with new plants, which must be tested in Denmark before they are launched into the market, and with taxa which are too unhomogeneous or too infected with pathogens to create a basis for efficient production. Plant producers, the Danish Institute of Agricultural Sciences, and the Danish Elite Plant Station cooperate on selecting the most suitable plants. These plants are propagated and tested at The Danish Institute of Agricultural Sciences. The plants are tested for pathogenic properties, growth properties, climate tolerance, and propagation properties. The plants also are described with regard to morphology and usage. The best clones continue in the system and are called candidate stockplants. They are further tested and viruses are removed using heat treatment and meristem propagation. In addition, candidate stockplants are tested for fungi and bacteria and propagated to candidate stockplants 2, which are kept isolated under conditions approved by the Danish Plant Directorate. If candidate stockplants 2 are approved after testing they are nuclear stockplants and are stored in an approved nuclear stockplant area (Fig. 1).

The nuclear stockplant is the first plant with defined genetic properties and/or free from specific pathogens. Propagation material from nuclear stockplants is grown under hygienic surroundings to protect against reinfection by pathogens and called elite stockplants. Plants derived from elite stockplants, certified class AAE plants, which are approved by The Danish Plant Directorate, are delivered to the growers by The Danish Elite Plant Station. Plants derived from class AAE plants can be certified as class AA plants, if they are grown according to strict control procedures stipulated by The Danish Plant Directorate. Finally, plants meeting the minimum requirements stipulated by the Danish Plant Directorate for plants to be sold commercially in Denmark may be certified as class A plants. Whether a plant is a nuclear stockplant or a class A plant it is tagged with a Dafo label as a quality guarantee.

A WORLD OF POSSIBILITIES

The Danish Elite Plant Station offers a wide assortment of tree fruits as graftwood and budwood; soft fruit; and trees and shrubs for parks, hedges, and gardens as plants and cuttings; strawberry plants; and pot plants as cuttings and plantlets. The assortment is described in three separate catalogues: tree fruit and soft fruit; pot plants; and trees, bushes, and perennials.

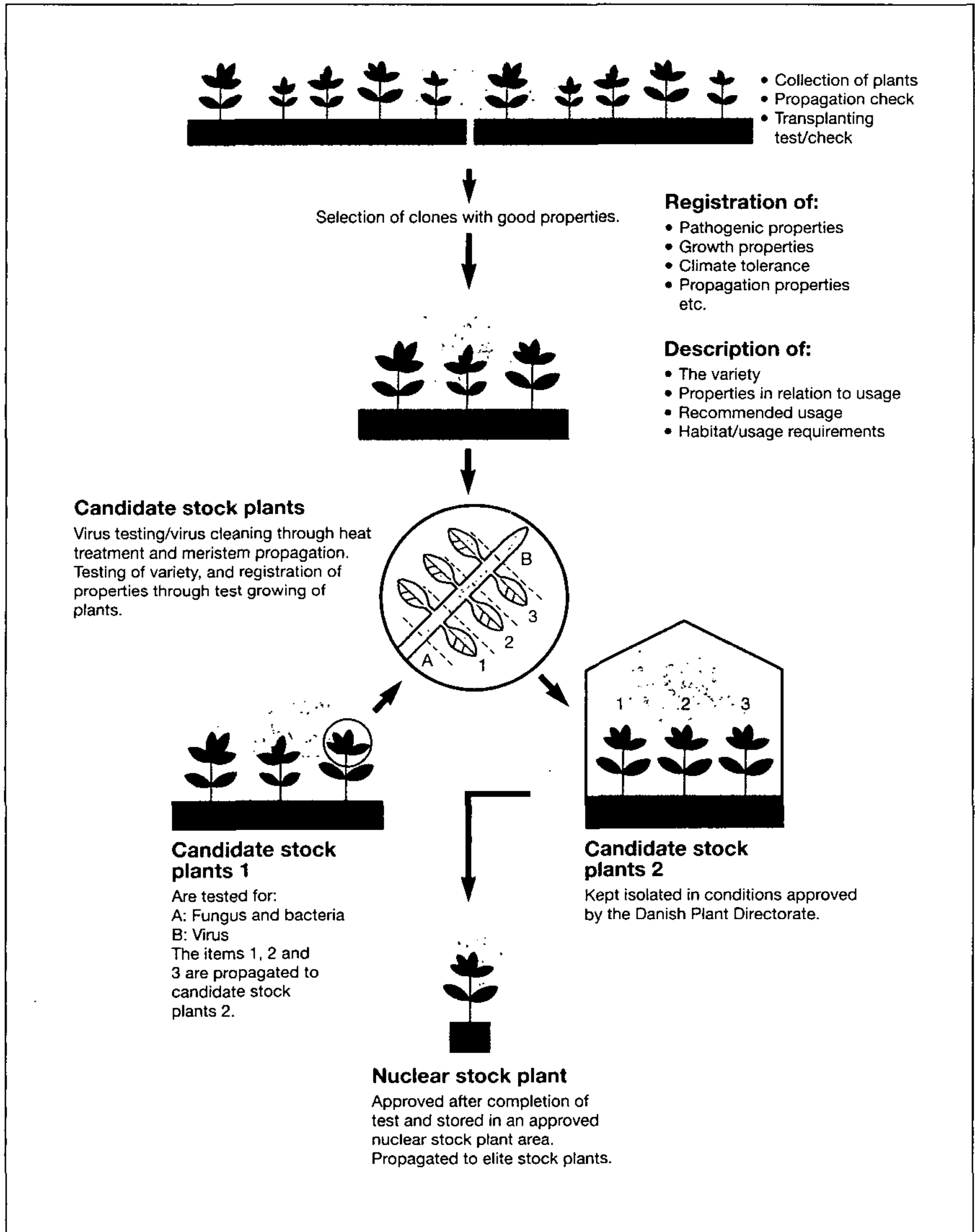


Figure 1. Selection from existing cultures, identification of taxa, and registration of properties during testing of plants.