

## GRADES

### Special conditions for the certification of: Elite Permanent Layer Beds (PLB), *Approved-Permanent Layer Beds (A-PLB)*, A+ Misted Cuttings (MC) grade and A+ Bedded Setts (BSN) grade.

Inspected for	<p><b>PLB and A-PLB</b> Trueness to variety, health and vigour.</p> <p><b>MC and BSN</b> Health and vigour only.</p>
Applications	To be made on form PHPS 18 by 1 May (PLB, A-PLB and MC) and 1 July (BSN). A field plan or map must also be submitted with each application for PLB, A-PLB and BSN.
Eligible material	<p><b>PLB</b> Plants must be produced directly from nuclear stock plants, or supplied from a source approved by Fera, or have been certified at Elite grade in the previous year.</p> <p>Other varieties may be entered for inspection only to meet isolation requirements but will not be certified. Once the full range of nuclear stock testing has been completed on such licensed trial varieties they are eligible for <i>Approved-Permanent Layer Bed (A-PLB)</i> status, for a maximum of two years, provided they meet the requirements for Elite (PLB). A-PLB stocks may not be propagated further within the PHPS.</p> <p>Plants may only be entered for 5 growing seasons from the planting of the original nuclear stock and must be certified annually or approved by Senior Plant Health and Seeds Inspector in advance for re-entry.</p> <p><b>MC</b> Plants can be produced from parent plants or directly from Elite PLB only.</p> <p><b>BSN</b> Plants can be produced from misted cuttings, parent plants or layered setts produced directly from Elite PLB only.</p> <p>Other varieties may be entered for inspection only to meet isolation requirements but will not be certified.</p> <p><b>Note</b> See Appendix 2 for full details of varieties and groupings.</p>
Growing conditions	<p><b>MC</b> Cuttings should be grown in a soil free or other sterilised medium. If the growing medium contains soil, it must be sampled for virus vectors prior to planting.</p> <p>All plants and pots must be kept free from contact with soil.</p> <p><b>BSN</b> Nursery beds should normally only be retained for 24 months.</p>



Freedom from soil-borne diseases	Crops must not be grown on land known to have been (PLB, A-PLB and BSN) infected by; potato wart disease, potato cyst nematode, Rhizomania, strawberry red core or verticillium wilt disease of hops.
Soil sampling (PLB and A-PLB only)	Soil sampling of the proposed field and its boundary hedge is required for freedom from the soil living virus vector nematode <i>Xiphinema diversicaudatum</i> (dagger nematode), prior to the planting and entry of material for certification.  Applications should be made on form PHPS 2 as soon as the field to be used is known. Fields found to be infested cannot be used for planting unless treated with an approved soil fumigant. No stock may be planted within 10 metres of any hedge found to be infested.
Rotation (PLB, A-PLB and BSN)	The land must have been free from hops and other hosts of <i>Verticillium albo-atrum</i> and <i>V. dahliae</i> (e.g. raspberries, strawberries, lucerne, potatoes, tomatoes, linseed and certain weed species) for 2 growing seasons prior to planting.
Isolation	<b>PLB, A-PLB and BSN</b> Plants must be: <ul style="list-style-type: none"> <li>• at least 15 kilometres from commercial hop plantations;</li> <li>• at least 400 metres from: <ul style="list-style-type: none"> <li>– hop plants not entered for inspection;</li> <li>– hop plants of the opposite sex (i.e. males); and</li> <li>– wild hops.</li> </ul> </li> </ul> Plants in groups 1 and 2 must not be grown on the same holding as plants listed in group 3. Plants in group 2 must be grown at least 1 kilometre away from all other plants entered.  <b>MC</b> Where possible, only one variety should be placed on each bench. Where this is not possible, there must be physical isolation between each variety. Where other plants are grown within a mist unit, these must be kept isolated from all hop plants.
Identification of stocks	<b>PLB, A-PLB and BSN</b> Beds and rows of different varieties must be clearly and permanently labelled. A gap of at least one planting station must be left between each variety.  <b>MC</b> Each variety and box of cuttings must be clearly identified and labelled.
Roguing	Limited roguing is permissible provided that records are kept of stocks rogued and the reason for roguing i.e. pest, disease or impurity. Stocks may not be certified/approved where records have not been kept.
Gapping-up (PLB, A-PLB and BSN)	Gapping-up may be permitted provided that any material used is of the same health standard. Growers must keep records of this procedure and make them available if requested to do so.

Number of inspections	<p><b>PLB and A-PLB</b> Two, normally during May and late August/early September.</p> <p><b>MC</b> One, normally immediately prior to despatch. Growers must inform their local Fera Plant Health and Seeds Inspectors of their intention to move plants at least 5 days in advance so that inspections can be arranged. If the plants are moved prior to inspection, a certificate will not be issued.</p> <p><b>BSN</b> One, during September.</p>
Standards to be met	<p>A summary of tolerances for pests and diseases is at Appendix 1.</p> <p>The control of pests and diseases must be of the highest standard and failure to achieve this will need to be rectified and a further chargeable inspection completed prior to certification/approval.</p> <p><b>MC and BSN</b> Where a significant mixture of varieties is identified, a grower may be asked to rogue, if practicable, or certification may be withheld.</p>
Quarantine diseases	<p>Under, in England, the Plant Health (England) Order 2005, or in Wales, the Plant Health (Wales) Order 2006, growers who become aware of or suspect the presence of any quarantine disease on their premises must immediately notify their local Fera Plant Health and Seeds Inspectors.</p> <p>All plants must be free from Verticillium wilt (caused by <i>V. albo-atrum</i> or <i>V.dahliae</i>).</p> <p><b>MC</b> Growers should consult their Fera Plant Health and Seeds Inspectors about the use of soil from land that is scheduled for soil-borne quarantine diseases. See also paragraph 7 of PHPS 1.</p>
Validity	<p><b>PLB and A-PLB</b> Plants may be described as Elite grade PLB or <i>Approved</i> grade PLB for a period of 12 months from the date of the certificate/approval, subject to satisfactory completion of any further inspections.</p> <p><b>MC</b> Plants may be described as A+ misted cuttings for 4 weeks from the date of the certificate.</p> <p><b>BSN</b> Plants may be described as A+ bedded setts until 31 May in the year following certification.</p>