

## **Annex 10. Procedure for growth complaints**

### **Reason for initiating the procedure**

Differences in growth at a propagation company that are suspected to be attributable to some characteristic of the employed substrate *without* there being any difference in the development of the lobe leaves (precluding the possibility of approaching the problem with the plant tolerance test of the Assessment Guideline).

### **Outside this procedure**

The producer could supply the pure auxiliaries numbered for a series of growth trials. In those trials, series of increasing concentration are then to be tested using the same plants of the Phytotox kit. That will at least reveal the normal consequences of overdosing the products concerned.

### **Restrictions**

Even with this procedure it will not be possible to cover all potential problems (it does not cover any substances that are formed only after combustion or mixing, or any substances introduced via machine maintenance or contaminants deriving from lorry floors, plant-specific reactions of untested plants, etc.).

### **Conditions**

A complaint will be handled according to the procedure outlined below only if the complainant and the producer are unable to determine in consultation whether or not the supplied product conforms to the conditions of the RHP certificate scheme (PCS) assessment.. The procedure will not be initiated while the two parties are still discussing the matter or are still in the process of analysing the cause of the problem.

In handling a complaint according to the procedure outlined below the complainant and the producer must commit to the procedure. Both parties must during the course of the procedure refrain from carrying out any tests or activities relating to the complaint themselves, unless this has been agreed by the independent quality assurance organisation RHP, the complainant and the producer.

The reason for this is to avoid double work and discussions about the acceptance of test results if the research aims and methods have not been determined beforehand. The two parties must moreover have the opportunity to attend any sampling sessions.

### **Costs**

RHP will cover the costs entailed by the activities (excluding laboratory tests) carried out by RHP and the expert from WUR Glastuinbouw (Department of Greenhouse Horticulture of the University and Research Centre of Wageningen) in phases 1-7A. RHP will subsequently charge those costs to the supplier concerned.

The costs involved in the activities carried out by RHP and the WUR Glastuinbouw expert and the laboratory tests in phases 8-13 will be payable by the unsuccessful party (see items 12 and 13).

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No.	Description	Result
1	A growth problem is identified	<i>Reason for initiating the procedure</i>
2	Suspect substrate?	Differences in growth at a propagation company
3	A difference in the development of the lobe leaves is identified	that are suspected to be attributable to some characteristic of the employed substrate
4	The growth problem qualifies for handling via this procedure	<i>without</i> there being any difference in the development of the lobe leaves (precluding the possibility of approaching the problem with the plant tolerance test of the Assessment Guideline). The complainant has already submitted the complaint to the substrate producer but is unable to arrive at an agreement with the producer as to how the complaint should be handled.
4a	Description of the symptoms	<p><i>The plant grower provides a description and clear photos of:</i></p> <ul style="list-style-type: none"> <li>• The shape, colour and dimensions per plant part of normal and defective growth (photos of details, overall plant and overall batch).</li> <li>• Development of the first symptoms.</li> <li>• Further development of the symptoms.</li> <li>• Chronological development in days after sowing or repotting/pricking out.</li> <li>• Number of plants showing defective growth (%).</li> <li>• Spatial distribution (photos).</li> <li>• The shape, colour and dimensions of the pots or the bases of the pots (photos).</li> <li>• The substrate blocks or plugs; details relating to colour, inclusions or other defects (photos).</li> </ul>
4b	Growth conditions	<p><i>The grower provides the following details:</i></p> <ul style="list-style-type: none"> <li>• Climate conditions during the propagation period (24-hours T values, light, RH and CO<sub>2</sub> indoors and T, light and RH outdoors).</li> <li>• Water: sources, mixing, frequency, amount/duration of intermittent irrigation, degree of recycling.</li> <li>• Disinfection method.</li> <li>• Manure recipe, available analyses.</li> <li>• Dosed EC, pH, measured values.</li> </ul>
4c	Auxiliary materials and facilities	<p><i>Which auxiliary materials/facilities were used? May they have caused the problem? If not, why not?</i></p> <ul style="list-style-type: none"> <li>• Auxiliary materials: seed, vermiculite/plugs, pots, water, nutrients, bamboo canes, floor.</li> <li>• Facilities: storage area, wetting line,</li> </ul>

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		<p>distribution machine (for spacing of blocks in the greenhouse), lighting, screens, carbon dioxide, irrigation system (intermittent irrigation/sprinkler line).</p> <p>Checklist for considering potential known previous causes:</p> <ul style="list-style-type: none"> <li>• Control products used for crops (substances permeate films in the form of the product and vapour) next to the greenhouses (weed control), next to the basin or in the shed.</li> <li>• Gas; NOx CO and ethylene from the burner, exhaust gases; on crops, in the shed.</li> <li>• Vapour effect; bamboo canes, heating hoses, paintwork.</li> <li>• Floor; high pH due to concrete, vapour and the effect of contact with coating.</li> <li>• Nutrients; overdose of trace elements, effluents (in particular seasonal fluctuations in the source), changes in types/suppliers of fertiliser.</li> <li>• Disinfection; chlorine or other residues in the pipes.</li> <li>• Drip patches; if they may contain zinc or fluorine.</li> <li>• External: air pollution, e.g. fluorine.</li> <li>• Numbers of the employed substrate batches, of defective and normal growth.</li> </ul>
4d	Batch details	Numbers of the employed substrate batches, of defective and normal growth.
4e	Securing materials	<p><i>The grower ensures that the following materials are secured:</i></p> <ul style="list-style-type: none"> <li>• Unused blocks with the same batch numbers, 5 or more per batch number. The grower is responsible for producing a block showing the problems. The grower will see the blocks along the wetting line and will be the first to be able to identify problems in the cultivation section.</li> <li>• Suspect nutrient solution; the liquid from 5 or more of the suspect and normal pots must be squeezed into one or more new 100 cc plastic flasks as soon as possible. The flasks must be labelled, filled without air and immediately sealed. They must then be stored away from light at &lt; 7 degrees Centigrade or deep frozen as soon as possible. In the case of</li> </ul>

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		<p>substrates from which no liquid can be squeezed: collect 10 pots or 20 plugs and freeze them.</p> <ul style="list-style-type: none"> <li>• Pots used for cultivation: label 5 pots with defective plants and 5 pots with normal plants, cut off the plants at the surface of the pot and store and transport the pots at &lt; 7 degrees Centigrade.</li> </ul>
5	Records and secured materials	<i>The grower provides an easily accessible set of records and stores the secured materials as required, under demonstrable and traceable storage conditions.</i>
6	RHP is sent a fax or email providing a summary description of the problem and the conditions, the complainant's address details and the supplier's name. The complainant agrees to conform to the procedure.	<i>The complainant confirms the complaint in writing.</i>
6A	RHP informs the producer about the complaint and checks for compliance with the conditions on p. 1 of this procedure. If the producer wants to settle the complaint with the complainant himself the procedure is stopped.	<i>The producer has been informed of and agrees with the initiation of the procedure.</i>
7	RHP arranges for an expert from WUG Glastuinbouw to visit the grower within 5 days and informs the complainant and the producer of the arranged visit. The producer may be present during the expert's visit, but the date of the visit will be determined solely by Kiwa/WUR Glastuinbouw.	<i>The WUR Glastuinbouw expert visits the complainant, takes any samples required and secures them. The tests are not yet started.</i>
7A	WUR Glastuinbouw reports the findings of its visit to RHP and makes a concrete proposal for further tests. WUR Glastuinbouw provides an indication of the costs involved in those tests. Kiwa sends the report and WUR Glastuinbouw's estimate of the costs to the complainant and the producer, asking them to approve the proposed tests. The producer and the complainant respond by fax or email, providing their permission for the tests.	<i>WUR Glastuinbouw's report and the complainant and the producer commit to the tests.</i>
8	RHP sends a confirmation of the tests to WUR Glastuinbouw.	<i>WUR Glastuinbouw is commissioned to start the tests.</i>
9	Binding test by expert.	<p><i>A Phytotox kit test involving 3 crops. The test must comprise at least the following materials:</i></p> <ol style="list-style-type: none"> <li>1. 5 normal pots not used for cultivation and 5 suspect pots not used for cultivation;</li> </ol>

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		<ol style="list-style-type: none"> <li>2. Nutrients solution of 5 suspect and 5 non-suspect pots;</li> <li>3. Material from 5 suspect pots used for cultivation and 5 non-suspect pots used for cultivation.</li> </ol> <p>The pots are extracted, five at a time, if necessary with nutrients solution. NB the extracts are used for the analyses, not the original substrate!</p> <p><i>The solutions are used to prepare the following Phytotox kit series (at the same EC and pH):</i></p> <ol style="list-style-type: none"> <li>1. Normal, not used for cultivation</li> <li>2. Suspect, not used for cultivation</li> <li>3. Suspect nutrients</li> <li>4. Non-suspect nutrients</li> <li>5. Suspect, used for cultivation</li> <li>6. Non-suspect, used for cultivation</li> <li>7. Control sample</li> </ol> <p>Each series must comprise three units (cassettes), each with 10 seeds, a different plant species per cassette.</p>
10	WUR Glastuinbouw sends a report of the test results to RHP.	<i>WUR Glastuinbouw provides a comprehensive report of the test results. The report must contain an unambiguous conclusion concerning the question whether the growth complaints identified by the grower are directly attributable to the quality of the supplied substrate material.</i>
11	RHP sends the test report to the complainant and the producer accompanied by its own conclusion as to whether the producer had rightly or wrongfully supplied the certified materials.	<i>RHP sends its conclusion to the complainant and the producer, stating which party must pay the costs of the complaint research.</i>
12	If the defective growth is not attributable to the employed substrate the costs involved in the tests will be charged to the grower.	
13	If the defective growth is attributable to the employed substrate the costs involved in the tests will be charged to the substrate producer. The producer must make agreements with the complainant concerning the further handling of the complaint, e.g. any damages to be charged to the grower and optionally the supply of replacement materials.	
14	If applicable will manufacturer will within 3 months of the outcome of the report take the recommended improvement actions/measures	