



by Brian E. Whipper
bwhipker@ncsu.edu

Strobilanthes: Stalled Growth & Flowering

The short days of winter will result in the induction of flowering and stalled growth with Persian shield. This Alert describes the diagnostic signs and ways to avoid the problem.

Persian shield (*Strobilanthes dyerianus*) is one of my favorite bedding plants. I really like the purple and silver leaf coloration. Both last spring and again this year, there are a few cases where Strobilanthes plants were observed with stunted growth, the new leaves were smaller, and a short flower stalk was present (Fig. 1).

The desired characteristics of robust plants actively growing and covered with large purple leaves is the result of long day conditions. Strobilanthes plants flower under short day conditions of winter (Fig. 2). This results in the

plants initially developing smaller sized leaves and then flowers. With all the energy going into flower production, the overall plant growth stalls. This



Figure 1. Flower stalk on a Persian shield plant grown under short days.

2015 Sponsors



e-GRO Alert

www.e-gro.org

CONTRIBUTORS

Dr. Nora Catlin
Floriculture Specialist
Cornell Cooperative Extension -
Suffolk County
nora.catlin@cornell.edu

Dr. Chris Currey
Assistant Professor of Floriculture
Iowa State University
ccurrey@iastate.edu

Dr. Kristin Getter
Floriculture Outreach Specialist
Michigan State University
getterk@msu.edu

Dan Gilrein
Entomology Specialist
Cornell Cooperative Extension -
Suffolk County
dog1@cornell.edu

Dr. Brian Krug
Floriculture Ext. Specialist
Univ. New Hampshire
brian.krug@unh.edu

Dr. Joyce Latimer
Floriculture Extension & Research
Virginia Tech
jlatime@vt.edu

Dr. Roberto Lopez
Floriculture Extension & Research
Purdue University
rglopez@purdue.edu

Dr. Neil Mattson
Greenhouse Research & Extension
Cornell University
neil.mattson@cornell.edu

Dr. Paul Thomas
Floriculture Extension & Research
University of Georgia
pathomas@uga.edu

Dr. Brian Whipker
Floriculture Extension & Research
NC State University
bwhipker@ncsu.edu

Copyright © 2015

Where trade names, proprietary products, or specific equipment are listed, no discrimination is intended and no endorsement, guarantee or warranty is implied by the authors, universities or associations.

can be a production challenge when trying to grow out a full sized plant for spring production (Fig. 3) or when the plant is for stock and you want to harvest vegetative cuttings.

Flower formation in strobilanthes is a short day response. Vegetative growth occurs under long day conditions. From September 21st until March 21st in the northern hemisphere is the time to provide day length extension so the days are 14 hours long or night time interruption to avoid flowering. A typical tactic is to place the plants under lights from 10 pm to 2 am (Fig. 4). If the plants are grown with other light

sensitive plants such as poinsettias, black cloth will need to be pulled to avoid light pollution to those sensitive plants.

If your plants have flowers, then give them a hard pinch so that you remove all the smaller reproductive leaves. This may not be feasible if the plant has been grown the entire winter under short day conditions. Place the plants under long day conditions. Provide them with adequate fertility to encourage growth. From my observations, regrowth can be sporadic and often times plants are delayed because of the lag time required for them to size up.



Figure 2. Elongated flower stalk on a Persian shield plant grown under short days.

Cooperating Universities



Cornell University
Cooperative Extension
of Suffolk County



College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences



In cooperation with our
local and state greenhouse
organizations



Thus, waiting for regrowth may not be an economically feasible option to be able to have stalled plants ready for spring sales.

Key Points

In summary, strobilanthes

need long days to avoid stalled growth and flower formation. Lighting should be provided so that the day is extended to 14 hours or provide a night lighting interruption to avoid flowerers.



Figure 3. Stalled growth and flowering due to growing the plant under short day conditions.



Figure 4. A simple night interruption lighting and shade system used to provide long day conditions and keep plants vegetative.