

How to assess the susceptibility of peach cultivars to Leaf Curl (*Taphrina deformans*)

Problem

Leaf curl (*Taphrina d.*) is the most important challenge in organic peach & nectarine cultivation. Infested trees have a reduced photosynthesis during spring, which might result in lower productivity.

Solution

Based on an earlier validated protocol, the InnOBreed peach working group, including experts from various institutions and countries, has developed a practical guideline to assist in the identification of the onset and field evolution of this disease on cultivars.

Benefits

This guideline aims to help how-to carry-on evaluation of varieties and/or genetic resources accessions for their level of Leaf Curl susceptibility. The purpose is to assist users in assessing the impact of Leaf curl (*Taphrina d.*) on cultivars in the field and help them to select cultivars with lower susceptibility to this disease.

Practical recommendations

To identify the level of susceptibility of peach cultivars, it is recommended to do the observation once or twice in spring in the period when most of the cultivars are showing symptoms of curled, red-coloured leaves, before the attacked leaves start falling.

The pictures, the description and the scale in table 1 should guide users in the correct and harmonized ranking of the susceptibility level of cultivars, based on the visual assessment of percentage of leaves showing typical symptoms.

It is recommended to focus on the rating numbers 1, 2, 3, 5, 7, 9 and use the numbers 4, 6, 8 in intermediate situations.

Applicability box

Theme

Crop production, pest and disease control

Keywords

plant disease control, disease tolerance

Context

Mediterranean, temperate and continental peach growing areas

Application time

Spring (April to May)

Required time

About two minutes per cultivar

Period of impact

Year of evaluation and, in cases of serious infections, following year

Equipment

List of cultivars for notation on a sheet or on a tablet

Best in

Organic /low input peach and nectarine cultivars growing systems






Rating	1	2	3	4	5	6	7	8	9
Susceptibility	No	Very low	Low	x	Medium	x	High	x	Very high
% leaves attacked	0%	0-1%	1-5%		15-30%		45-60%		>75 %
Description	Absence of symptoms		immediately visible symptoms on few leaves		medium % of leaves with symptoms		high % of leaves with symptoms		very high % of leaves with symptoms
Photo									

Table 1. Rating scale of susceptibility to Leaf curl based on the amount (%) of leaves affected.

Further information

Further reading

- Blanc P, Gallia V, Dhaussy T, Serfel, 2015. Evaluation des principales variétés de pêches et nectarines à trois bioagresseurs. Compte rendu d'essai. www.serfel.fr.

Weblinks

- Assessment of the susceptibility of peach cultivars to Powdery mildew (*Podosphaera pannosa*) - Practice Abstract: organic-farmknowledge.org/tool/57476
- Assessment of the susceptibility of peach cultivars to Brown rot (*Monilinia* spp.) on fruit in the orchard - Practice Abstract: organic-farmknowledge.org/tool/57477

About this practice abstract

Publisher: BOKU University,
 University of Natural Resources and Life Sciences Vienna
 Gregor-Mendel-Straße 33, 1180 Vienna, Austria
 Tel.: +43 1 47654 0; <https://boku.ac.at/>

Authors: Julien Ruesch (CTIFL), Daniela Giovannini (CREA),
 Andreas Spornberger, Daniela Noll (BOKU)

Contact: Daniela.noll@boku.ac.at



Review: Lauren Dietemann (FiBL)

Permalink: organic-farmknowledge.org/tool/57478

Project name: InnOBreed - Innovative Organic fruit Breeding and uses

Project website: <https://innobreed.eu/>

© 2026

