TEST REPORT

of the

Julius Kühn-Institut

Federal Research Institute
for Cultivated Plants, Braunschweig

Injector hollow cone nozzle Lechler ITR 80-01 C
(Ceramics, plastic-coated, orange)

Approved for spraying orchards and vineyards

Applicant and Manufacturer
Lechler GmbH
Präzisionsdüsen – Tropfenabscheider
Ulmer Strasse 128
72555 Metzingen

Approved on
6 January 2016

Institute for Applicationtechnique in Plantprotection DOI: 10.5073/AT.2016.G2023en
Messeweg 11-12, 38104 Braunschweig - GERMANY

Assessment

The hollow cone nozzle Lechler ITR 80-01 C (Ceramics, plastic-coated, orange) was tested without accessories. The nozzle is suitable for spraying orchards and vineyards, proved that the following technical requirements are fulfilled:

1. Installation in a spray boom with a sufficient and a steady amount of liquid flow,

2. Spray pressure – measured in front of the nozzle – between 3.0 and 20.0 bar; liquid volume flow per nozzle as stated in table below.

Suitable precautions should be taken to assure that the nozzles do not get blocked up or drip when in use. The dimensions of the nozzle tip comply with standard ISO 8169. The colour coding of the nozzle comply with standard ISO 10625.

Pressure (bar)	Liquid flow volume with and without filter 4514-10 (l/min)	Max. deviation of single nozzle flow from the dosage tables with / without filter	Droplet spectrum (BCPC-Standard)
3.0	0.38	-2.14 %	very coarse
4.0	0.44	-	very coarse
5.0	0.49	-4.95 %	very coarse
6.0	0.54	-	very coarse
8.0	0.63	-	very coarse
10.0	0.70	-4.96 %	very coarse
12.0	0.77	-	coarse
15.0	0.86	-4.55 %	-
20.0	0.99	-	-

Loss reducing properties: Included in the list „Loss reducing equipment“ (15 April 2016)

Drift reducing classification	operating range	Type of equipment and drift reducing parts	Regulations for use
75 %	Vineyards	Sprayers with axial blower with nozzle Lechler ITR 80-01 C	For the initial first 3 rows, outwardly directed air support must be rendered ineffective. Air outlet max. 20.000 m³/h.

Field test

The nozzles were used in the year 2015 on a total of 53 hectares vines, a sufficient effect of the plant protective measures was confirmed.

Basics for testing

The tests were carried out on basis of the Regulations for Testing Plant Protection Equipment (JKI-Guideline 2-1.1:2013) and of ISO 5682-1:1999. The requirements of ISO 16119-3:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

Field testing:
Staatl. Lehr- und Versuchsanstalt
für Wein- und Obstbau
Traubenplatz 5
74189 Weinsberg

Technical testing:
Institut für Anwendungstechnik im
Pflanzenschutz des
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