



TEST REPORT

of the
Julius Kühn-Institut
Federal Research Institute
for Cultivated Plants, Braunschweig



Flatfan nozzle Lechler FT 90-03
(Plastic, blue)

Approved for use with the Lechler Dropleg^{UL} device for plant protection measures in oilseed rape during flowering and for strip spraying at a height of 10 to 40 cm

Applicant and Manufacturer

Lechler GmbH
Präzisionsdüsen-Tropfenabscheider
Ulmer Strasse 128
72555 Metzingen

Approved on

30. December 2019

Assessment

The flatfan nozzle Lechler FT 90-03 (Plastic, blue) was tested without accessories. The nozzle is suitable for spraying in field crops provided that the following technical requirements are fulfilled:

1. Use with Lechler Dropleg^{UL},
2. 500 mm between Dropleg to Dropleg,
3. Spray pressure – measured in front of the nozzle – between 1.0 and 6.0 bar; liquid volume flow per nozzle as stated in table below,
4. Distance from the nozzles to the spraying level in accordance with the information in the Lechler Dropleg usage instructions,

Use as strip spray nozzle (with or without Dropleg^{UL}) for the following pressures and heights

Spray pressure (bar)	Distance to target area	Effective spray width
1.0 to 4.0	10 cm	25 cm
1.0 to 4.0	20 cm	50 cm
1.0 to 4.0	30 cm	65 cm
1.0 to 4.0	40 cm	80 cm

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

Volume flow of Dropleg^{UL} with 2 x nozzle FT 90-03 POM, the specified pressure was measured before Dropleg^{UL}.

Pressure (bar)	Liquid flow volume without accessories (l/min)	Droplet spectrum (BCPC-Standard)
1.0	1.31	coarse
2.0	1.85	coarse
3.0	2.27	coarse
4.0	2.62	coarse
5.0	2.93	coarse
6.0	3.21	medium

Loss reducing properties

Included in the list „Loss reducing equipment“

Drift reducing classification	Type of equipment and drift reducing parts	Regulations for use
90 %	Field sprayer with Lechler Dropleg ^{UL} mit TwinSprayCap and with two nozzles Lechler FT 90-03 per Dropleg ^{UL}	Pressure range from 1.5 to 5.0 bar
90 %	Strip sprayers with nozzle Lechler FT 90-03	Pressure range from 1.0 to 4.0 bar, Distance from nozzle to the spray area 0.1 m (effective spray width 25 cm), 0.2 m (effective spray width 50 cm), 0.3 m (effective spray width 65 cm) and 0.4 (effective spray width 80 cm)

Field test

The nozzles were used in the year 2019 with Lechler Dropleg^{UL}, 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 (Guideline 2-1.1:2013) and of ISO 5682-1:1999. The requirements of EN 16119-2:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

Field testing:
Landwirtschaftskammer
Nordrhein-Westfalen
Pflanzenschutzdienst, Ref. 62
Nevinghoff 40
48147 Münster

Technical testing:
Institut für Anwendungstechnik im
Pflanzenschutz des
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