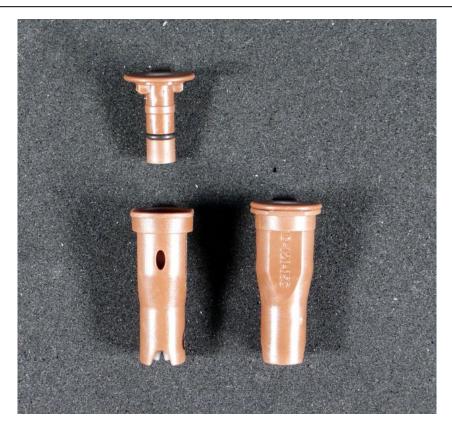
# TEST REPORT



## Julius Kühn-Institut

Federal Research Institute for Cultivated Plants, Braunschweig



Flatfan nozzle Lechler ID-120-05 C (ceramics, plastic-coated, brown)

### Approved for spraying field crops

Applicant and Manufacturer Lechler GmbH Präzisionsdüsen – Tropfenabscheider Ulmer Strasse 128 72555 Metzingen Approved on 10 January 2014

#### Assessment

The flatfan nozzle Lechler ID-120-05 C (ceramics, plastic-coated, brown) was tested without accessories. The nozzle is suitable for spraying field crops, provided that the following technical requirements are fulfilled:

- 1. Installation in a spray boom with a sufficient and a steady amount of liquid flow,
- 2. 500 mm nozzle spacing,
- 3. 50 cm between nozzles and spray target (consistency of eveness of cross distribution proved satisfactory at a distance range from 40 cm to 60 cm),
- 4. Spray pressure measured in front of the nozzle between 2.0 and 8.0 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 nozzles have a key width of 10 mm. The dimensions of the nozzle tip comply with standard ISO 8169. The colour coding of the nozzle comply with standard ISO 10625. For the application on the edges Lechler recommends the use of the nozzle IS 80-025 POM as last nozzle in the spray boom.

| Pressure<br>(bar) | Liquid flow volume without accessories (I/min) | Max. deviation of single nozzle flow from the dosage tables | Evenness of cross<br>distribution at (cm)<br>40 / 50 / 60<br>(Vk %) | Droplet spectrum (BCPC-Standard) |
|-------------------|--|---|---|----------------------------------|
| 2.0               | 1.63   | 4.91 %  | 4.7 / 5.3 / 2.9   | very coarse                      |
| 3.0               | 2.00   | -   | 3.2 / 3.5 / 5.0   | very coarse                      |
| 4.0               | 2.31   | 4.47 %  | 4.0 / 3.5 / 5.4   | very coarse                      |
| 5.0               | 2.58   | -   | - / 4.1 / -   | very coarse                      |
| 6.0               | 2.83   | 4.66 %  | - / 4.4 / -   | very coarse                      |
| 7.0               | 3.05   | -   | -/-/-   | very coarse                      |
| 8.0               | 3.27   | 4.97 %  | - / 4.7 / -   | very coarse                      |

#### Loss reducing properties

Included in the list "Loss reducing equipment" (as of 23 March 2015)

| Drift reducing classification | Type of equipment and drift reducing parts | Regulations for use   |
|-------------------------------|--|---|
| 75 %                          | Fieldsprayers with Lechler ID-120-05 C     | With a target surface distance of 50 cm to the maximum pressure (8.0 bar).              |
| 90 %                          | Fieldsprayers with Lechler ID-120-05 C     | First 20 m from field edge spraying with max. 4.0 bar, nozzle height above target 50 cm |

#### Field test

The nozzles were used in the year 2014 on a total of 4938 hectares, 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 16119-2:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

#### Field testing:

Landesamt für ländliche Entwicklung Landwirtschaft und Flurneuordnung Pflanzenschutzdienst Müllrosachaussee 54 15236 Frankfurt/Oder Technical testing:
Institute for Application Technique in Plant Protection
Messeweg 11-12,
38104 Braunschweig

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