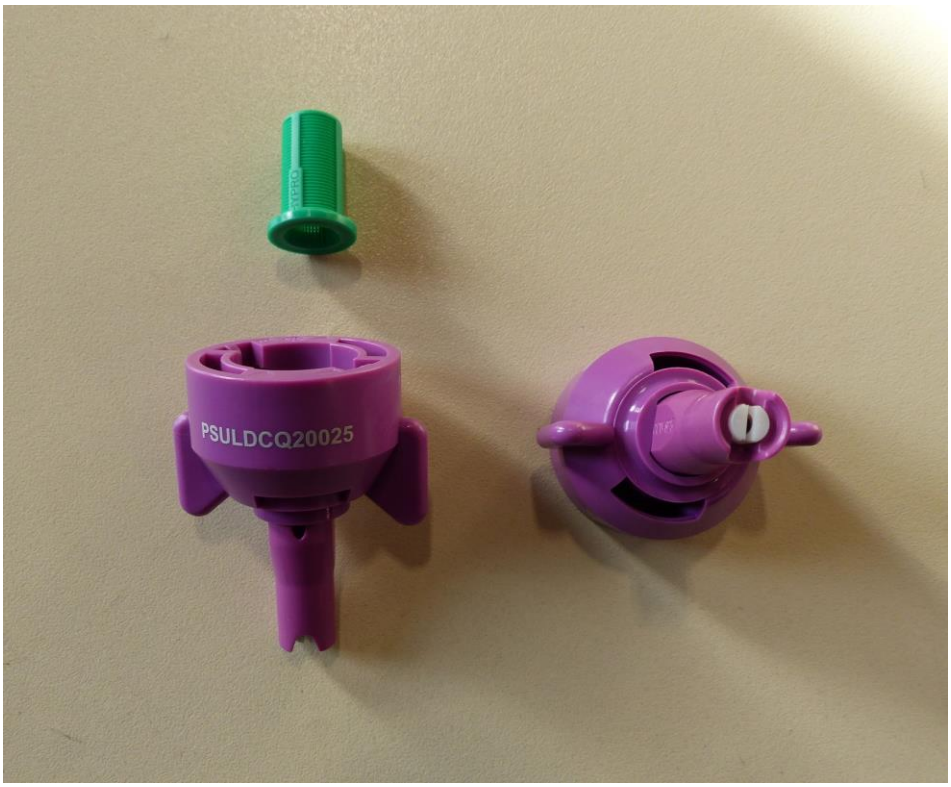
# TEST REPORT

of the

## Julius Kühn-Institut

Federal Research Institute
for Cultivated Plants, Braunschweig




**Flatfan nozzle John Deere PSULDCQ20025**
**(Ceramics, plastic-coated, lilac)**

**Approved for spraying field crops**

**Applicant**
Hypro EU LTD
Sation Road
Longstanton
CB24 3DS CAMBRIDGE, UK

**Manufacturer**
Lechler GmbH
Präzisionsdüsen – Tropfenabscheider
Ulmer Straße 128
72555 Metzingen

**Approved on**
**1 February 2021**

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Assessment

The flatfan nozzle John Deere PSLDCQ20025 (Ceramics, plastic-coated, lilac) was tested with filter and bayonet cap (System TeeJet). 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 complies with standard ISO 8169. The colour coding of the nozzle complies with standard ISO 10625.

| Pressure (bar) | Liquid flow volume without accessories (l/min) | Max. deviation of single nozzle flow from the dosage tables | Evenness of cross distribution at (cm) 40 / 50 / 60 (Vk %) | Droplet spectrum (BCPC-Standard) |
|---|---|---|---|---|
| 2.0 | 0.77 | 3.27% | 4.0 / 6.1 / 3.9 | very coarse |
| 3.0 | 0.94 | - | 4.5/ 3.6 / 5.5 | very coarse |
| 4.0 | 1.09 | -2.96 % | 5.7 / 4.3 / 2.4 | very coarse |
| 5.0 | 1.21 | - | - / 3.3 / - | very coarse |
| 6.0 | 1.33 | 4.33 % | - / 2.4 / - | very coarse |
| 7.0 | 1.44 | - | - / - / - | coarse |
| 8.0 | 1.54 | 2.78 % | - / 2.0 / - | coarse |

Loss reducing properties

Included in the list „Loss reducing equipment“ (as of 24 March 2022)

| Drift reducing classification | Type of equipment and drift reducing parts | Regulations for use |
|---|---|---|
| 50 % | Fieldsprayers with John Deere PSULDCQ20025 | First 20 m from field edge spraying with max. 6.0 bar, nozzle height above target 50 cm. |
| 75 % | Fieldsprayers with John Deere PSULDCQ20025 | First 20 m from field edge spraying with max. 4.0 bar, nozzle height above target 50 cm. |
| 90 % | Fieldsprayers with John Deere PSULDCQ20025 | First 20 m from field edge spraying with max. 2.5 bar, nozzle height above target 50 cm. |

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:

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Technical testing:

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