## TEST REPORT



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



Double - Flatfan nozzle John Deere PSAULDCQ20025 (ceramics, plastic-coated, lilac)

Approved for spraying field crops

Applicant Hypro EU LTD Station Road Longstanton CB24 3DS CAMBRIDGE, UK ManufacturerALechler GmbH9Präzisionsdüsen – TropfenabscheiderUlmer Strasse 12872555 Metzingen

Approved on 9 May 2021

## **Assessment**

The double-flatfan nozzle John Deere PSAULDCQ20025 (ceramics, plastic-coated, lilac) was tested with filter and bayonet cap. 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 colour coding of the nozzle comply with standard ISO 10625.

Pressure (bar)	Liquid flow volume without accessories (I/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	0.81	-2.35 %	4.8 / 4.6 / 4.4	very coarse
3.0	0.99	-	6.7 / 4.7 / -	very coarse
4.0	1.15	-2.24%	6.6 / 3.9 / 2.6	very coarse
5.0	1.28	-	6.1 / 3.7 / -	very coarse
6.0	1.40	2.06 %	- / 3.9 / -	very coarse
7.0	1.52	-	- / - / -	coarse
8.0	1.62	1.48 %	- / 3.6 / -	coarse

## Loss reducing properties

Included in the list "Loss reducing equipment" (as of 15 July 2021)

Drift reducing classification	Type of equipment and drift reducing parts	Regulations for use
90 %	Fieldsprayers with John Deere PSAULDCQ20025	First 20 m from field edge spraying with 2.0 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:

<u>Technical testing:</u> Institute for Application Technique in Plant Protection Messeweg 11-12, 38104 Braunschweig

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