



# TEST REPORT

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



**Hollow cone nozzle ASJ HCA 80-01  
(Ceramics, plastic-coated, orange)**

**Approved for spraying orchards and vineyards**

**Applicant and Manufacturer**  
ASJ Spray-Jet  
Via Busca 101  
12044 CENTALLO (CN) ITALY  
ITALIEN

**Approved on**  
**6 January 2017**

## Assessment

The air-injection hollow cone nozzle ASJ HCA 80-01 (ceramics, plastic-coated, orange) was tested without additional accessories and is suitable for orchards and vineyards, provided that the following technical requirements are fulfilled:

1. Installation in nozzle tubes with 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 tip comply with standard ISO 10625.

Pressure (bar)	Liquid flow volume without accessories (l/min)	Max. deviation of single nozzle flow from the dosage tables	Droplet spectrum (BCPC-Standard)
3.0	0.41	4.79 %	very coarse
4.0	0.47	-	very coarse
5.0	0.53	4.10 %	very coarse
6.0	0.58	-	coarse
8.0	0.67	-	coarse
10.0	0.75	4.70 %	coarse
12.0	0.82	-	medium
15.0	0.92	4.49 %	medium
20.0	1.06	-	-

Field test: The nozzles were used in the year 2015 on a total of 105 hectares in orchards, 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 ISO 16119-2:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

### Field testing:

Obstbauversuchs- und Beratungszentrum  
Moorende 53  
21635 Jork

### Technical testing:

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