



ENTAM

European Network for Testing Agricultural Machines

Sandro Liberatori, Technical Reference Unit ANTAM
**Second Policy Dialogue on Trade Facilitation through International
Standards and Mutual Recognition of Agricultural Machinery
Testing**

Samarkand, Uzbekistan – April 2024

European Network for Testing Agricultural Machines

ENTAM Agreement: mutual recognition of testing activity



ENTAM 2.0 is the network constituted by the **Dedicated testing stations** in those European countries which have signed an agreement on shared activities.

These activities have, as their ultimate aim, the implementation of **standardised tests of the performance, safety and environmental aspects of agricultural machinery and tools.**

At the manufacturer's request, tests are carried out by specialist Testing Stations.

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<https://www.entam.eu>



[ENTAM 2.0](#) [PROCEDURES](#) [PARTNERS](#) [TESTS RECOGNISED](#) [CONTACTS](#)



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The ENTAM Network is based on the following bodies :

- Board of Directors
- National Reference
- Team of Competence

The ENTAM Network is based on the following documents:

- Agreement
- Procedures
- Technical Instruction
- Test Report

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Example of ENTAM Test Report



ENTAM - Test Report



Sprayer type: Trailed boom sprayer
 Trade mark: CAFFINI spa
 Model: GLOBAL T ONE 4200/30 BL Air (and extensions)

Manufacturer: Caffini spa
 Via Marconi, 2
 I - 37050 Palù (VR)
 ITALY

Test report: 05.331 a-ai
 Emission: December 2022
 Reissue for name change: May 2023

CAFFINI SpA GLOBAL T ONE 4200/30 BL Air+ext 05.331

Assessment table

| n° | Contents | Assessment | |
|----|---|------------|------|
| | | 3200 | 4200 |
| 1 | Spray tank surface roughness | xxx | xxx |
| 2 | Spray tank overvolume (% up to nominal volume) | x | x |
| 3 | Residual (related to the max value) | x | x |
| 4 | Spray tank content gauge up to 10% filling | xxx | xxx |
| 5 | Spray tank content gauge up to 20% filling | xx | xxx |
| 6 | Spray tank content gauge from 20% filling | xx | xxx |
| 7 | Aplation system test (max concentration error) | | x |
| 8 | Boom section width | | x |
| 9 | Boom height adjustment range | | xxx |
| 10 | Accuracy of pressure gauge (max deviation) | | xxx |
| 11 | Deviation of volumehectare adjustment device from desired value | | xx |
| 12 | Regulation speed | | xx |
| 13 | Repeatability of volumehectare adjustment device (spray area) | | xxx |
| 14 | Deviation of single nozzle output from table | | x |
| 15 | Pressure drop | | x |
| 16 | Transverse distribution | | x |
| 17 | Rinsing water tank | xxx | xxx |
| 18 | Fan flow rate (grade/measured) | | xxx |
| 19 | Efficiency cleaning system | | xx |
| 20 | Efficiency of wash tank | | x |

Note: The assessment keys are listed below. All detailed results are in the following test report.

| n° | Key | x | xx | xxx | n° | Key | x | xx | xxx |
|----|-----|-----------|------------|-----------|----|------------|-------------|-----------|--------|
| | | | | | | | | | |
| 11 | µm | >10-100 | 30-70 | <30 | 11 | x | <4-5 | 2-4 | <2 |
| 2 | % | <4 | <6-12 | >12 | 12 | x | >7-10 | 3-7 | <3 |
| 3 | | >20-33 | 10-20 | <10 | 13 | CV | >2-3 | 1-2 | <1 |
| 4 | % | 15.0-10.0 | 10.0-5.0 | <5.0 | 14 | % | >7-10 | 3-7 | <3 |
| 5 | % | 7.5-6.0 | 5.0-3.5 | <3.5 | 15 | % | >7-10 | 3-7 | <3 |
| 6 | % | 5.0-4.0 | 4.0-2.0 | <2.0 | 16 | % | >7-9 | 4-7 | <4 |
| 7 | % | >10-15 | 5-10 | <5 | 17 | mm average | 10-12 | >10-15 | >15 |
| 8 | m | 4.0-4.5 | 4.0-3.5 | <3.5 | 18 | % | >7-10 | 3-7 | <3 |
| 12 | m | 1.0-1.5 | >1.5-2.0 | >2.0 | 19 | % | 80-75-60-40 | <60-50-30 | >30-20 |
| 10 | bar | >10-10-20 | >10.0-0-10 | 0.00-0.05 | 20 | % | 80-85 | >80-90 | >90 |

Free download of the complete test report on:
www.ENTAM.eu or www.ENAMASERVIZI.it

CAFFINI SpA GLOBAL T ONE 4200/30 BL Air+ext 05.331

Responsibility and recognition



Performing competent authority:

Crop Protection Technology
 DISAFA – University of Torino
 Largo Paolo Braccini, 2
 I - 10095 Grugliasco (TO) - ITALY

This test is recognized by the ENTAM members:

| | | |
|--|--|------------------------------------|
| | CMA - Administració de la Generalitat de Catalunya, Centre de Mecanització Agrària -SPAIN- | EPH 04/23 |
| | INRAE Institut National De Recherche en Agriculture, Alimentation et Environnement -FRANCE- | INRAE/CEMAGREF/ENTAM/23/044 |
| | JKI - Julius Kühn-Institut (formerly BBA) -GERMANY- | ENT-I-65/23 |

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Activities are focused on agricultural machines using chemical because of the legislative requirements to reduce the use of chemicals.





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ENTAM Benefits

Network to provide quality agricultural machinery at benefit of national agriculture

Benefits for all Stakeholders and Governments

Participation at ENTAM TWGs to set up requirements according to selected standards and national agriculture needs



A perfect platform to discuss and share decisions on quality requirements of agricultural machines.

Will give prevalence in subsidy policy to tested machines



Subsidies policies can have a criteria for selecting the best machines and certified machines have assessed requirements and are the best investment for public money.

National agriculture with safe and well performing machines



Machines with assessed (certified) performances and safety requirements = less social cost due to human safety, better quality/quantity production, better protection of the environment.



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THANK YOU

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