

# A20-313-890FE

## Efficacy of ozone applied alone and in mix, against *Botrytis* sp., *Oidium* sp. and *Alternaria* sp. on Tomato. Morocco 2020

Trial ID: A20-313-890FE Location: Morocco Trial Year: 2020  
Protocol ID: 890A20FE11 Investigator (Creator): Antonio Russo  
Project ID: Study Director: Davide Barnabè - Agri 2000 Net Srl  
Sponsor Contact: Giulio Senese - MET Srl  
Trial Origin: C contracted trial

## TREATMENT LIST

Trt No.	Type	Treatment Name	Form Conc	Form Unit	Form Type	Other Rate	Other Rate Unit	Appl Code	Comment 1	Comment 2
1	CHK	Untreated Check								
2	FUNGO	Ozone			SN	5PPM	PR	ABCDEF	300-1000 L/ha	Spray application with water
3	FUNGO	Ortiva Top	350g/L	SC		200mL/100		LABCDEF	300-1000 L/ha	Spray application

## OBJECTIVES

- Do the Ozone used alone have efficacy comparable to the standard Ortiva Top?
- Does the addition of Ozone to the standard Ortiva Top increase the efficacy of Ortiva Top used alone?
- Does the addition of Ozone emulsified Sunflower oil increase the efficacy of Ozone used alone?
- Are all treatments safe for the crop?

# SITE DESCRIPTION

## Trial Location

**City:** Agadir    **Country:** MAR Morocco  
**Climate Zone:** EPOMED EPPO Mediterranean

## Crop Description

**Crop 1:** Solanum lycopersicum (Tomato)  
**Variety:** Fantasy  
**Planting Date:** Aug-20-2020  
**Planting Method:** transplanted - hand  
**Row Spacing:** 2 m  
**Spacing within Row:** 0,4 m

## Pest Description

**Pest 1 Type:** D    **Code:** Oidium sp.

## Site and Design

**Treated Plot Width:** 2 m                      **Site Type:** GREENH greenhouse  
**Treated Plot Length:** 20 m  
**Treated Plot Area:** 40,0 m<sup>2</sup>  
**Replications:** 7  
**Study Design:** Randomized Complete Block (RCB)

## Soil Description

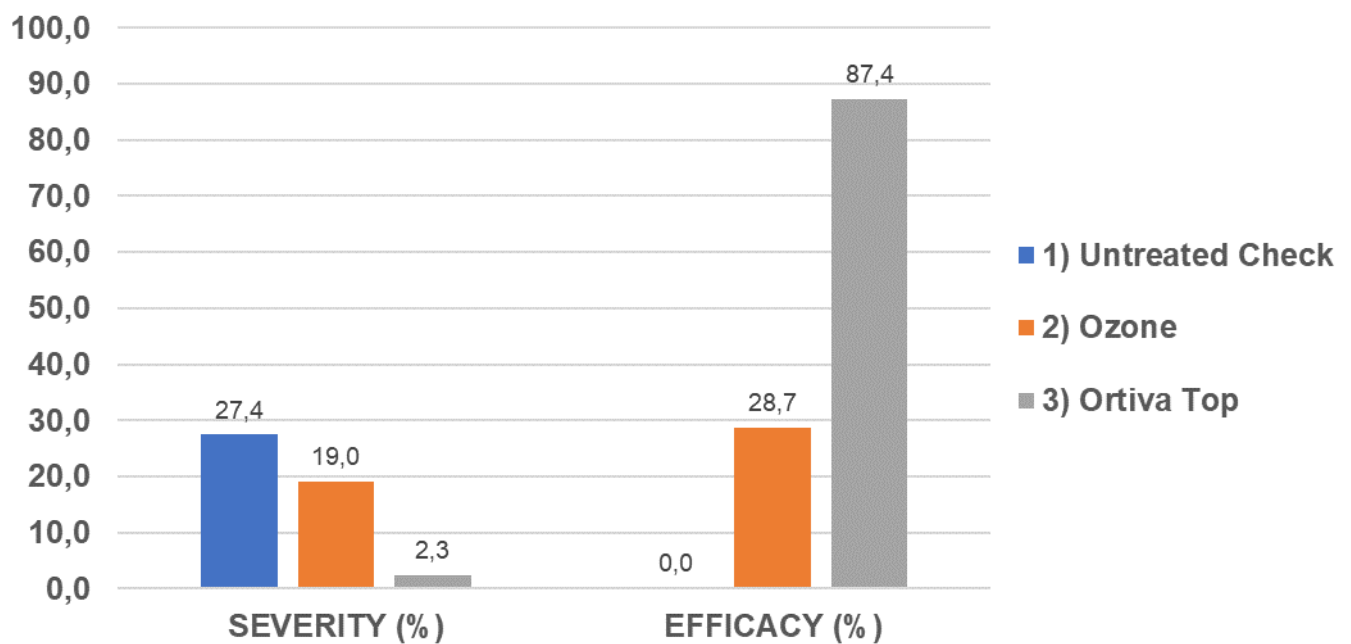
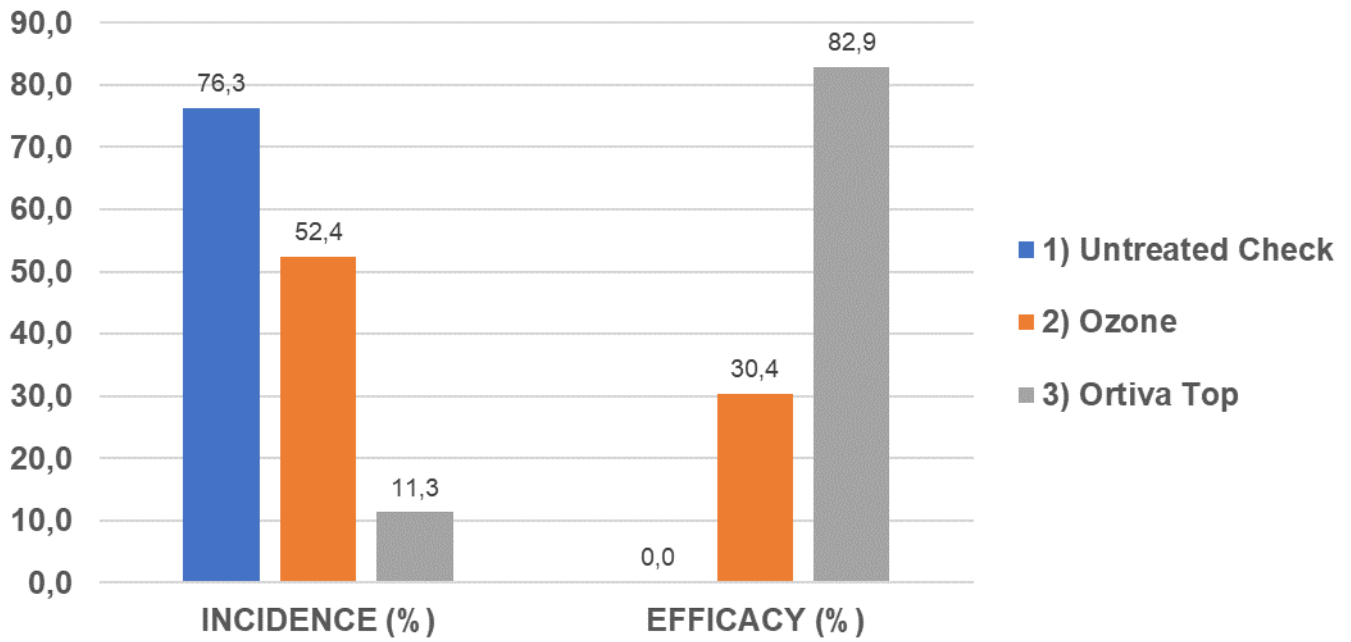
**Description Name:** Coconut fiber

## Application Description

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Application Date</b>	Oct-30-2020	Nov-6-2020	Nov-13-2020	Nov-18-2020	Nov-23-2020	Nov-28-2020

# RESULTS

## On Fruits, 5 days after last application



## COMMENTS

**English version:** At the end of the experimental program for the control of *Oidium sp.* on tomato in greenhouse, during which 6 applications were carried out based on a 5-7 days spray interval, the untreated check showed an incidence on fruits equal to 76,3% (76,3 attacked fruits on 100 fruits), with a consequent serious damage to the yield. All the products tested in field showed significant results if compared to the untreated check. The best result is showed by the standard Ortiva Top, which reduced the *Botrytis* damage to 11,3% of fruits, ensuring a more qualitative production to the crop. Also the Ozone applied alone allowed a control of the disease, albeit lower, showing an incidence of 52,4%.

**Versione italiana:** Al termine della strategia sperimentale per il controllo di *Oidium sp.* su pomodoro in serra, durante la quale sono state realizzate 6 applicazioni, basate su un intervallo di applicazione di 5-7 giorni, il testimone non trattato ha mostrato un'incidenza sui frutti pari al 76,3% (76,3 frutti colpiti su 100 frutti), con conseguente grave danno alla produzione. Tutti i prodotti applicati in campo hanno fornito risultati significativi rispetto al testimone. Il miglior risultato è stato fornito dallo standard Ortiva Top, che ha ridotto l'attacco da botrite al 11,3% dei frutti, garantendo una produzione più qualitativa alla coltura. Anche l'ozono applicato da solo ha permesso un controllo della malattia, seppur inferiore, mostrando un'incidenza del 52,4%.

## CONCLUSION

**English version:** Within the test aimed at controlling *Oidium sp.* on tomato in greenhouse with the use of organic products, Ozone alone showed efficacy on fruits, also if the standard product Ortiva Top showed an higher efficacy. No symptoms of phytotoxicity were observed.

**Versione italiana:** All'interno della prova volta al controllo di *Oidium sp.* su pomodoro in serra con utilizzo di prodotti biologici, l'Ozono da solo ha mostrato efficacia su frutto, anche se il prodotto standard Ortiva Top ha mostrato un'efficacia più alta. Non si sono osservati sintomi di fitotossicità.

## CONTACTS

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