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July 21, 2019

# Re: MICROBIOLOGICAL TEST OF SEEDS

Official sample No.42838-2019/2
Certificate import no. 73010-2019

**Sample Details:**

| | | | |
|---|---|---|---|
| Sample: | Coated pepper seeds Capsicum Annum | Lab ID: | 4253 |
| Variety: | E20S10880 | Seeds origin: | VIETNAM |
| Lot No. | 5884947 | Name of official Sampler: | Shlomit Sinai |
| Weight of sample: | 110gr | Seed owner: | Efal Chemicals |
| Weight of shipment: | | Date sampled: 08.07.2019 | Date Received: 08.07.2019 |

| **Tested for:** | **RESULTS** |
|---|---|
| Pseudomonas corrugata - 2 replicates of 5000 seeds each | Negative |
| Clavibacter michiganensis subsp. michiganensis - 2 replicates of 5000 seeds each | Negative |
| Erwinia carotovora - 2 replicates of 5000 seeds each | Negative |
| Xanthomonas vesicatoria- 2 replicates of 5000 seeds each | Negative |
| Tobamoviruses (TMV ToMV, ToMMV, PMMoV, ToBRFV) - 12 replicates of 250 seeds each, by bioassay method. | Negative |
| Tomato black ring nepovirus - 1 replicate of 250 seeds | Negative |
| Tomato ringspot nepovirus -1 replicate of 250 seeds | Negative |
| Potato spindle tuber viroid (PSTVd) - 6 replicates of 500 seeds each | Negative |
| Phytophthora capsici - 400 seeds | Negative |

The tests were performed according to:
S.O.P 54: "Testing Tomato and Pepper seeds for Pt, Pc, Xv, Cmm, Er".
S.O.P 56: "Detection of Tobamoviruses in tomato and pepper plants and seeds"
S.O.P 83: "Detection of Fungi in seeds for: *Fusarium, Didymella, Phoma, Lasiodiplodia Macrophomina, Colletotrichum, Alternaria, Stemphylium, Cladosporium, Phytophthora, Verticillium.*
S.O.P 103: "Detection of viruses in Solanacea seeds".
S.O.P 80: "Detection of Viroid from the Pospiviroid group including Potato Spindle Tuber Viroid (PSTVd) in plants and seeds by RT-PCR or qPCR method".

**Comments:**
1. Transportation: The sample was received in the laboratory without any means of protection from temperature changes.
2. Treatment: The seeds were treated by THIRAM (TMTD), the treatment may interfere or mask the results.
3. The protocols are not valid for coated/pelleted seeds.
4. ISRAC is not responsible for the testing results conducted by the laboratory and the laboratory's accreditation is not considered as an approval of ISRAC or different party related to the assessed.
5. This document must be referred to entirely and copying of any part of it to other documents is forbidden
6. The data in this certificate reflect results that are valid for analyzed samples only as received in the lab.

**Final results are the PPIS representative responsibility.**
**End of certificate.**

Sincerely yours,
Isaac Assouline,
Head, Microlab Laboratories (99) LTD.