06/02/2024

## BASIL REFEREE

Summary of Questionnaire and Preview of Data

By: Nicolette Hard

- Purpose of this referee is to obtain enough data to have justification to add an additional substrate for the germination testing of Ocimum basilicum (Sweet Basil).
  - Current Substrates for Basil in AOSA Rules:
    - Substrata: B (Between Blotters); T (Paper Toweling, used either as folded towel tests or as rolled towel tests in horizontal or vertical position.)
  - Proposed Additional Substrate:
    - Substrata: TB (Top of Blotters).
      - Aligns with current ISTA Methods of TP.
        - TP: The seeds are germinated on top of one or more layers of paper which are placed:
          - on the Jacobsen apparatus (5.5.3.1);

• into transparent boxes or Petri dishes which may be placed in a flat or inclined position. The appropriate quantity of water is added at the beginning of the test and evaporation may be minimized by a tightly fitting lid or by enclosing the dishes in plastic bags;

• directly on trays in germination incubators which may be placed in a flat or inclined position. The relative humidity in the incubators must then be maintained at a level that prevents tests drying out. Moistened porous paper or absorbent cotton can be used as a base for the substrates.

#### Overview





#### Basil Survey Results

- How many samples do you test annually?
  - 0 10 Samples: 15 Labs
  - 11 50 Samples: 7
  - 51 100 Samples: 1
  - 101 + Samples: 3
- What substrata do you currently use to test with?
  - B: 11
  - TP: 6
  - Other: 10

- Do you use Potassium Nitrate (KNO3)?
  - Yes: 23
  - No: 4
- If you answered "No" to the above question, do you have access to Potassium Nitrate (KNO<sub>3</sub>)?
  - Yes: 16
  - No: 1

### Preview of Preliminary Data

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Lo		Planting Method	Time to Plant	First Count Time	Final Count Time	Germination Percentage	Abnormal Percentage	Ungerminated (Dead/Dormant)
1		BB	6:02	8:00	1:53	93	5	2
1		TB	4:58	6:20	1:31	96	2	2
1		RT	11:28	6:53	1:34	97	2	1
2		BB	5:13	6:18	2:03	53	9	38
2		TB	5:12	4:57	2:10	57	5	38
2		RT	11:24	5:35	1:51	61	7	32
3		BB	4:14	7:23	2:46	80	11	9
3		TB	2:51	6:24	2:01	89	7	4
3		RT	8:46	6:20	1:21	94	3	3
4		BB	3:34	8:18	3:47	86	11	3
4		TB	3:01	6:13	2:10	94	5	1
4		RT	7:42	5:51	1:59	95	4	1
5		BB	6:38	6:10	2:31	52	5	43
5		TB	4:49	5:53	1:21	58	4	38
5		RT	11:36	4:38	2:03	59	7	34
6		BB	4:58	8:10	3:36	60	30	10
6		TB	3:07	6:23	2:30	67	20	13
6		RT	7:31	7:11	3:52	71	21	8
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### Conclusions

- To those who had answered yes to being willing to participate in the Basil Referee will be receiving those samples this summer along with testing instructions.
- Hopefully have a Rules Proposal for the upcoming year (2025).

# THANK YOU!