

PGR Management and Use – COMPONENT I

Annual Progress Report for the year 2014-15

1. **Name of the Crop** : Seed Spices - **Fenugreek**
2. **Name of the Lead Centre**: ICAR-NRC on Seed Spices
3. Name of the Nodal person with designation: Dr. Rajesh Kumar Kakani, Pr. Scientist
4. **Name of the collaborating centres**: Nil
5. Name of Nodal person with designation: NA
6. **Number of accessions received from ICAR-NBPGR**: 375
7. **Number of accessions sown for characterization/multiplication**: It include 369 + 3 duplicates + 3 dill entries. Thus sown **369 lines**
8. **Number of accessions germinated as data were recorded**: 360 and three lines having mixture thus pure and three additional populations have been made thus total became **363**
9. **Experimental design**: Augmented Block design
10. **Checks used**: Three (AFg-1, AFg-3 and Hisar Sonali)
11. **Details of the characterization**:

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	ICAR-NRCSS	363	7.11.2014	26 character	25.3.2015 to	17.9.2015	9.9.2015
2							
3							
4							
6							
-							
-							

*Please attach the list of descriptors/descriptor status

12. **Same descriptors were used at all the locations**: Yes/No : Not applicable
13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters**:

14. Details of monitoring: Not Monitored

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1				
2				
3				
4				
6				
-				
-				

15. Papers Published: Nil

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:
- (iii) Manuscripts under preparation:

16. Patents/varieties and products developed or in pipeline:

Nil

Signature:

Name :

Designation :

Principal Investigator : Dr. Rajesh Kumar Kakani, Pr. Scientist (Plant Breeding)

Date :

Director/Project Director/Project Coordinator

PGR Management and Use – COMPONENT I

Annual Progress Report for the year 2014-15

1. **Name of the Crop** : Seed Spices - **Fennel**
2. **Name of the Lead Centre**: ICAR-NRC on Seed Spices
3. Name of the Nodal person with designation: Dr. Rajesh Kumar Kakani, Pr. Scientist
4. **Name of the collaborating centres**: Nil
5. Name of Nodal person with designation: NA
6. **Number of accessions received from ICAR-NBPGR**: 63
7. **Number of accessions sown for characterization/multiplication**: It include 60 + 3 dill entries. Thus sown 60 lines
8. **Number of accessions germinated as data were recorded**: 52
9. **Experimental design**: Augmented Block design
10. **Checks used**: Four (AF-1, RF-101, GF-1 and RF-125)
11. **Details of the characterization**:

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	ICAR-NRCSS	52	9.10.2014	14 character	29.4.2015 to	17.9.2015	9.9.2015
2							
3							
4							
6							
-							
-							

*Please attach the list of descriptors/descriptor status

12. **Same descriptors were used at all the locations**: Yes/No : Not applicable
13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters**:

14. Details of monitoring: Not Monitored

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1				
2				
3				
4				
6				
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-				

15. Papers Published: Nil

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:
- (iii) Manuscripts under preparation:

16. Patents/varieties and products developed or in pipeline:

Nil

Signature:

Name :

Designation :

Principal Investigator : Dr. Ram Swaroop Meena, Sr. Scientist (Plant Breeding)

Date :

Director/Project Director/Project Coordinator

PGR Management and Use – COMPONENT I

Annual Progress Report for the year 2014-15

1. **Name of the Crop** : Seed Spices - **Ajwain**
2. **Name of the Lead Centre**: ICAR-NRCS on Seed Spices
3. Name of the Nodal person with designation: Dr. Rajesh Kumar Kakani, Pr. Scientist
4. **Name of the collaborating centres**: Nil
5. Name of Nodal person with designation: NA
6. **Number of accessions received from ICAR-NBPGR**: 30
7. **Number of accessions sown for characterization/multiplication**: 30
8. **Number of accessions germinated as data were recorded**: 26
9. **Experimental design**:
10. **Checks used**: AA-1, GA-1 and AA-2
11. **Details of the characterization** :

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	ICAR-NRCSS	26	16.10.2014	10 character	25.3.2015 to	17.9.2015	9.9.2015
2							
3							
4							
6							
-							
-							

*Please attach the list of descriptors/descriptor status

12. **Same descriptors were used at all the locations:** Yes/No : Not applicable
13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters:**

14. Details of monitoring: Not Monitored

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1				
2				
3				
4				
6				
-				
-				

15. Papers Published: Nil

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:
- (iii) Manuscripts under preparation:

16. Patents/varieties and products developed or in pipeline:

Nil

Signature:

Name :

Designation :

Principal Investigator : Dr. Sumer Singh Meena, Sr. Scientist (Hort.)

Date :

Director/Project Director/Project Coordinator

Descriptors for fenugreek and their status in germplasm tested during 2014-15 at ICAR-NRCSS, Ajmer

S. No	Character	Average	Minimum	Maximum
1	Leaf Colour		1	3
2	Leaf Size		3	7
3	Petiole Colour		1	3
4	Petiole Length (cm)	1.86	0.66	7.54
5	Petiole Pubescence		0	1
6	Stem Colour		1	3
7	Stem Pubescence		0	1
8	Stem Shape		1	3
9	Inflorescence Colour		1	4
10	Plant Growth Habit		1	4
11	Growth Pattern		1	3
12	Category of Plant		1	2
13	Plant Height (cm)	68.17	36	122.2
14	No. of Primary Branches Per Plant	5.94	2.6	16.6
15	No. of Secondary Branches Per Plant	6.39	0	39.2
16	Pod Length (cm)	8.59	1.636	13
17	Number of Pods per axis on main stem	2.17	1	21.6
18	Number of Pods per Plant	58.65	19.8	185.2
19	Number of Seeds per Pod	15.75	3	24
20	Shelling %	67.74	42.11	92.19
21	Test weight (g)	13.75	1.2	25.2
22	Yield /plant	8.63	0.22	22.56
23	Downey Mildew PDI	0.88	0	40
24	Blight PDI	38.01	0	50
25	% wilt incidence	7.57	0	75.86207
26	Powdery mildew PDI	23.35	0	50

Explanation of categories of qualitative traits in fenugreek :

S. No	Character	Categories
1	Leaf Colour :	1. Dark Green, 2. Light green, 3 Light purple
2	Leaf Size :	1. Small, 2. Medium, and 3. Large
3	Petiole Colour :	1. Dark Green, 2. Light green, 3 Light purple
5	Petiole Pubescence :	0. Absent, 1. Present
6	Stem Colour :	1. Dark Green, 2. Light green, 3 Light purple
7	Stem Pubescence:	0. Absent, 1. Present
8	Stem Shape :	1. Round, 2. Angular
9	Inflorescence Colour	1. White, 2. Creamy, 3. Yellow
10	Plant Growth Habit :	1. Prostrate, 2. Semi erect (U type), 3. Semi erect (V type), 4. Erect (branching) 5. Erect (No Branching)
11	Growth Pattern	1. Poor 2. Good, 3. Very good
12	Category of Plant	1. Leafy type 2. Seed type

Descriptors for fennel and their status in germplasm tested during 2014-15 at ICAR-NRCSS, Ajmer

Characters	Mean	Min	Max
Days to Germination	10.77	10	11
Number of Branches per Plant	28.68	19.2	40.2
Days to 50 % Flowering (Days)	115.92	102	132
Days taken by King umbel in complete Anthesis (Days)	25.62	19	30
Fruiting nodes per plant	40.68	20.2	49.2
Seeds per umbel	939.62	604.8	1417.68
Seed per umbellate	28.69	21.4	35.8
Umbel diameter (cm)	16.14	12.6	19.6
Number of Umbel per Plant	40.68	20.2	49.2
Number of Umbellate per Umbel	32.46	25.2	46.8
Plant Height (cm)	178.72	148	202
Days to 80% maturity	177.35	170	181
1000-seed weight (g)	5.62	3.96	7.56
Yield / Line (2m) (g)	185.04	40	402

Descriptors for Ajwain and their status in germplasm tested during 2014-15 at ICAR-NRCSS, Ajmer

	Characters	Average	Minimum	Maximum
1	Days to germination	14	11	18
2	Plant height(cm)	109.84	83.2	130.4
3	No. of primary branches/plant	9.62	8.40	10.80
4	No. of secondary branches/plant	227.51	198.00	255.20
5	Diameter of main umbel	5.39	4.66	6.48
6	No. umbel/plant	190.30	60.60	223.00
7	No. of umbellate per umbel	15.78	10.20	19.60
8	No. of fruits per umbel	18.42	13.80	21.40
9	Seed yield per plant	26.38	8.00	80.00
10	Weight of 1000 seeds	1.21	0.72	1.86