

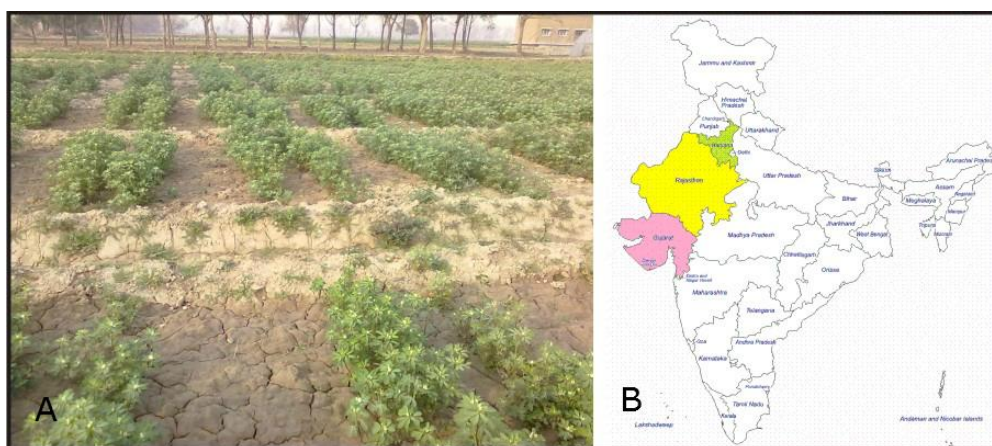
Effect of morphological trait variance on plant yield in different *Trigonella foenum-graecum* L. varieties

Annu Sindhu, Suresh Kumar Tehlan, Ashok Chaudhury*

Supplementary Table 1: Classification of the qualitative traits in 90 *Trigonella* varieties.

S. No	Qualitative Trait	Classification	No. of Variety	Variety Code
1	Plant growth habit	Semi-erect	44	H4, H13, H9, H10, H14, H15, H18, H19, H20, H22, H23, H24, H25, H26, H27, H28, H30, G4, G6, G7, G8, G11, G12, G15, G24, G25, G26, G28, R4, R6, R7, R8, R10, R11, R12, R13, R15, R16, R19, R21, R24, R26, R29, R30
		Erect	35	H1, H2, H3, H5, H6, H8, H11, H12, H16, H17, H29, G1, G2, G5, G10, G13, G14, G16, G17, G18, G19, G20, G21, G22, G23, G27, G29, G30, R5, R9, R17, R18, R20, R22, R23
		Prostrate	11	H7, H21, G3, G9, R2, R3, R12, R14, R25, R27, R28
2	Leaf Margin	Deeply serrated	77	H1, H2, H3, H4, H5, H6, H7, H8, H9, H10, H11, H12, H13, H14, H15, H16, H17, H18, H19, H20, H21, H22, H23, H24, H25, H26, H27, H28, H29, H30, G2, G3, G4, G5, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G20, G21, G26, G27, G28, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R25, R26, R27, R28, R29, R30
		Less serrated	13	G1, G6, G7, G8, G19, G22, G23, G24, G25, G29, G30, R23, R24
		Absent	14	H3, H4, H5, H6, H7, H14, H18, H19, G6, G17, G18, R9, R22, G29
3	Leaf margin pigmentation	Present	76	H1, H2, H8, H9, H10, H11, H12, H13, H15, H16, H17, H20, H21, H22, H23, H24, H25, H26, H27, H28, H29, H30, G1, G2, G3, G4, G5, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G19, G20, G21, G22, G23, G24, G25, G26, G27, G28, G30, R1, R2, R3, R4, R5, R6, R7, R8, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R23, R24, R25, R26, R27, R28, R29 and R30
		Absent	14	H3, H4, H5, H6, H7, H14, H18, H19, G6, G17, G18, R9, R22, G29
4	Leaf tip	Rounded	44	H1, H2, H3, H4, H5, H6, H15, H16, H19, H21, H22, H24, H26, G4, G8, G9, G10, G12, G13, G14, G15, G17, G18, G19, G20, G21, G22, G26, G27, G28, G30, R1, R2, R3, R4, R9, R10, R11, R12, R16, R18, R20, R21, R24
		Pointed	46	H7, H8, H9, H10, H11, H12, H13, H14, H17, H18, H20, H23, H25, H27, H28, H29, H30, G1, G2, G3, G5, G6, G7, G11, G16, G23, G24, G25, G29, R5, R6, R7, R8, R13, R14, R15, R17, R19, R22, R23, R25, R26, R27, R28, R29, R30
5	Number of pods per axis	Single pod	68	H1, H2, H3, H5, H6, H7, H8, H9, H10, H11, H12, H13, H14, H16, H17, H20, H22, H23, H24, H25, H26, H27, H28, H29, H30, G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, G12, G13, G15, G16, G18, G21, G22, G23, G24, G27, G28, G29, G30, R1, R3, R4, R5, R7, R8, R10, R13, R14, R16, R17, R18, R19, R20, R21, R24, R25, R28, R30
		Double pod	22	H4, H15, H18, H19, H21, G14, G17, G19, G20, G25, G26, R2, R6, R9,

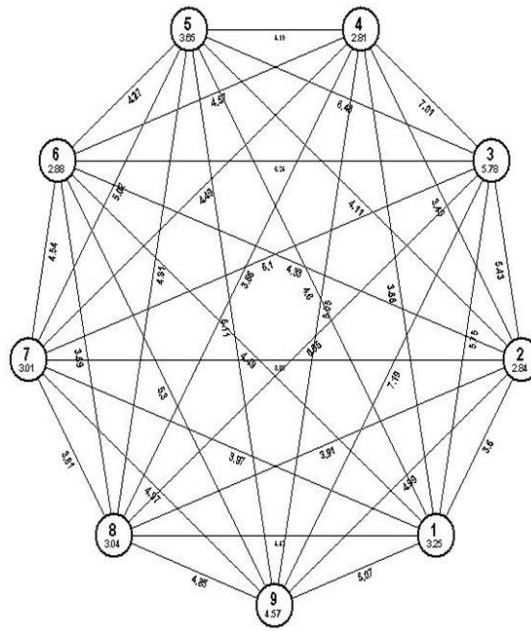
				R11, R12, R15, R22, R23, R26, R27, R29
6	Seed color	Yellow	53	H1, H2, H3, H4, H5, H6, H7, H8, H10, H11, H12, H14, H16, H17, H19, H20, H22, H23, H25, H26, H27, H28, H29, G2, G4, G8, G11, G12, G13, G15, G19, G20, G23, G24, G25, G26, G27, G29, R2, R7, R30, R8, R9, R10, R11, R12, R13, R18, R19, R20, R27, R28, R29
		Dark brown	7	H15, H18, H21, H30, G1, G5, G7
		Brown	30	H13, H9, H24, G3, G6, G9, G10, G14, G16, G17, G18, G21, G22, G28, G30, R1, R3, R4, R5, R6, R14, R15, R16, R17, R21, R22, R23, R24, R25, R26
7	Seed size	Large	65	H1, H2, H3, H4, H5, H7, H8, H10, H11, H12, H13, H14, H15, H16, H17, H19, H20, H21, H22, H23, H25, H26, H27, H29, H30, G1, G2, G3, G5, G7, G8, G9, G13, G15, G16, G17, G18, G19, G21, G23, G25, G26, G28, G29, G30, R3, R5, R6, R8, R9, R10, R12, R13, R14, R17, R18, R19, R20, R21, R22, R23, R24, R26, R29, R30
		Small	25	H6, H9, H18, H24, H28, G4, G6, G10, G11, G12, G14, G20, G22, G24, G27, R1, R2, R4, R7, R11, R15, R16, R25, R27, R28
8	Seed luster	Dull	46	H2, H4, H5, H6, H7, H8, H9, H15, H19, H20, H21, H22, H23, H24, H26, H27, H30, G6, G7, G9, G10, G12, G14, G16, G17, G18, G20, G21, G22, G25, G27, G28, G29, R2, R3, R6, R15, R16, R18, R19, R20, R21, R22, R23, R25, R26
		Shiny	44	H1, H3, H10, H11, H12, H13, H14, H16, H17, H18, H25, H28, H29, G1, G2, G3, G4, G5, G8, G11, G13, G15, G19, G23, G24, G26, G30, R1, R4, R5, R7, R8, R9, R10, R11, R12, R13, R14, R17, R24, R27, R28, R29
9	Category of plant	Seedy type	80	H1, H2, H3, H4, H6, H7, H8, H10, H11, H12, H13, H14, H15, H16, H17, H19, H20, H21, H22, H23, H24, H25, H26, H27, H28, H29, H30, G2, G3, G4, G5, G6, G7, G8, G9, G12, G14, G15, G16, G17, G18, G19, G20, G22, G23, G24, G25, G26, G27, G28, G29, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R25, R26, R27, R28, R29, R30
		Leafy type	10	H5, H9, H18, G1, G10, G11, G13, G21, G30, R24



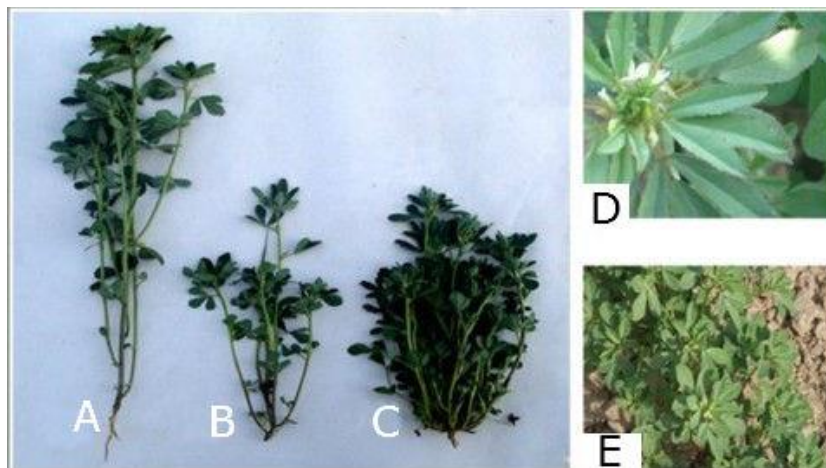
Supplementary Figure 1. 90 *Trigonella* varieties cultivated in agriculture farms (A) and map showing different eco-geographical regions of collection (B).

Supplementary Table 2. Brief description of 90 *Trigonella* varieties employed in present investigation.

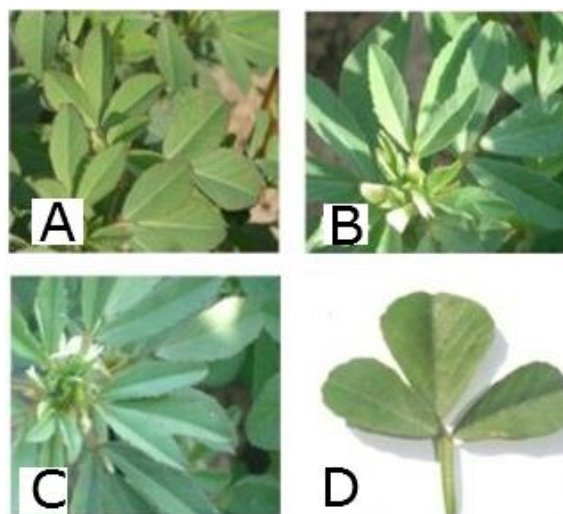
S. No.	Name of variety	Variety code used in study	Collection region	S. No.	Name of variety	Variety code used in study	Collection region
1	HM-57	H1	Haryana	46	JFg-194	G16	Gujarat
2	HM-103	H2	Haryana	47	JFg-195	G17	Gujarat
3	HM-201	H3	Haryana	48	JFg-196	G18	Gujarat
4	HM-202	H4	Haryana	49	JFg-198	G19	Gujarat
5	HM-203	H5	Haryana	50	JFg-201	G20	Gujarat
6	HM-204	H6	Haryana	51	JFg-202	G21	Gujarat
7	HM-205	H7	Haryana	52	JFg-203	G22	Gujarat
8	HM-208	H8	Haryana	53	JFg-204	G23	Gujarat
9	HM-209	H9	Haryana	54	JFg-205	G24	Gujarat
10	HM-211	H10	Haryana	55	JFg-206	G25	Gujarat
11	HM-212	H11	Haryana	56	JFg-207	G26	Gujarat
12	HM-214	H12	Haryana	57	JFg-208	G27	Gujarat
13	HM-221	H13	Haryana	58	JFg-209	G28	Gujarat
14	HM-226	H14	Haryana	59	JFg-210	G29	Gujarat
15	HM-232	H15	Haryana	60	JFg-211	G30	Gujarat
16	HM-233	H16	Haryana	61	UM-11	R1	Rajasthan
17	HM-236	H17	Haryana	62	UM-12	R2	Rajasthan
18	HM-239	H18	Haryana	63	UM-13	R3	Rajasthan
19	HM-240	H19	Haryana	64	UM-14	R4	Rajasthan
20	HM-241	H20	Haryana	65	UM-15	R5	Rajasthan
21	HM-242	H21	Haryana	66	UM-16	R6	Rajasthan
22	HM-243	H22	Haryana	67	UM-17	R7	Rajasthan
23	HM-246	H23	Haryana	68	UM-18	R8	Rajasthan
24	HM-246-1	H24	Haryana	69	UM-19	R9	Rajasthan
25	HM-247	H25	Haryana	70	UM-20	R10	Rajasthan
26	HM-248	H26	Haryana	71	UM-31	R11	Rajasthan
27	HM-253	H27	Haryana	72	UM-32	R12	Rajasthan
28	HM-253-1	H28	Haryana	73	UM-33	R13	Rajasthan
29	HM-254	H29	Haryana	74	UM-34	R14	Rajasthan
30	HM-257	H30	Haryana	75	UM-35	R15	Rajasthan
31	JFg-7	G1	Gujarat	76	UM-44	R16	Rajasthan
32	JFg-13	G2	Gujarat	77	UM-45	R17	Rajasthan
33	JFg-15	G3	Gujarat	78	UM-46	R18	Rajasthan
34	JFg-52	G4	Gujarat	79	UM-47	R19	Rajasthan
35	JFg-77	G5	Gujarat	80	UM-48	R20	Rajasthan
36	JFg-80	G6	Gujarat	81	UM-49	R21	Rajasthan
37	JFg-148	G7	Gujarat	82	UM-50	R22	Rajasthan
38	JFg-178	G8	Gujarat	83	UM-51	R23	Rajasthan
39	JFg-179	G9	Gujarat	84	UM-52	R24	Rajasthan
40	JFg-180	G10	Gujarat	85	UM-53	R25	Rajasthan
41	JFg-181	G11	Gujarat	86	UM-54	R26	Rajasthan
42	JFg-183	G12	Gujarat	87	UM-55	R27	Rajasthan
43	JFg-184	G13	Gujarat	88	UM-56	R28	Rajasthan
44	JFg-185	G14	Gujarat	89	UM-57	R29	Rajasthan
45	JFg-191	G15	Gujarat	90	UM-112	R30	Rajasthan



Supplementary Fig 2. Intra- and inter-cluster distances between different clusters among 90 *Trigonella* varieties (Numerals 1-9 represents the cluster I-XI).



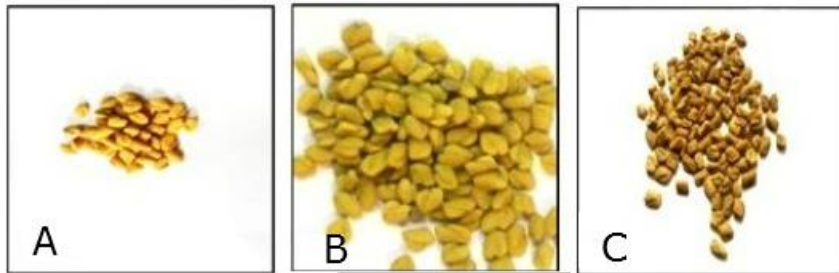
Supplementary Fig 3. Plants showing different growth habits: erect (A), semi-erect (B), and prostrate (C) and deeply serrated (D) and less serrated (E) leaves.



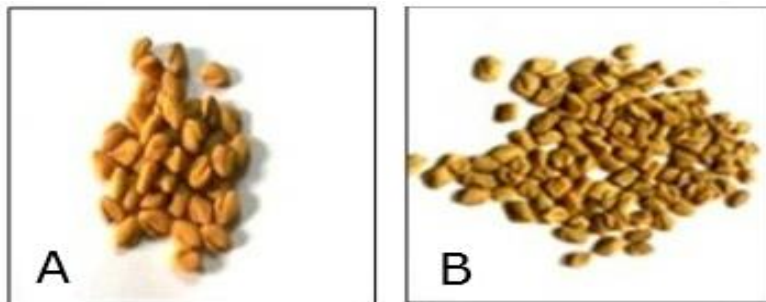
Supplementary Fig 4. *Trigonella* varieties with leaf margin pigmentation: present (A), absent (B) and pointed (C) and rounded (D) leaf tip.



Supplementary Fig 5. *Trigonella* varieties having single pod (A) and double pods (B)



Supplementary Fig 6. Seed color brown (A), yellow (B), dark brown (C).



Supplementary Fig 7. *Trigonella* varieties with large seed (A) and small seed size (B).