

Supplementary Table 1 Cluster membership and number of lentil genotypes in each cluster

Cluster	Genotypes	No. of genotypes
I	RKL61F-2-15, RKL58F-3715, DPL 62 (Check), Sapna (Check)	4
II	RKL-44, RKL1003-3-B, RKL1003-43-E, RKL47E-130, RKL1003-56F, RKL1003-2 II-A, RKL-1003-57F-A, RKL-1003-69G-A, RKL-1003-72G, RKL-1003-4, RKL 1003-53E-A, RKL 1003-69G-B, RKL 1003-53E-B, RKL 1003-66G-B, RKL 1003-57F-B, RKL 1003-2II-B, RKL 1003-54E-B, RKL 1003-42E-A, RKL 35D-62, RKL 1003-42E-B, RKL 17C-159, RKL 1003-44E, RKL 64F-3, RKL 23C-2741B, RKL 3-94, RKL 26C-340, RKL 50E-273, RKL 53E-230, RKL 35D-3128, RKL 58F-1187, RKL 47E-2180, RKL 73GIII-13, RKL 25C-349, RKL 17C-164, Garima (Check)	35
III	RKL58F-111, RKL1003-3-A, RKL-1003-67G, RKL 61F, HM-1 (Check)	5
IV	RKL36E-1131, RKL 1003-63G, RKL 1003-68G, RKL 60F-1216, RKL 1003-33D, RKL 68G-241	6
V	RKL12E-1120, RKL-1003-3C, RKL-1003-66G-A, RKL 1003-3D	4
VI	RKL-1003-54E-A	1
VII	RKL-74G, RKL 15B-157	2
VIII	RKL 23C-2741A, RKL 51E, RKL 26C-345	3
Total		60

Supplementary Table 3 Cluster means for twenty morphological traits of 60 lentil genotypes

Trait/ Cluster	Cluster I	Cluster II	Cluster III	Cluster IV	Cluster V	Cluster VI	Cluster VII	Cluster VIII	Overall Mean
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Foliage colour intensity	1	2	2	2	2	3	2	2	2
Leaflet length (mm)	1.9	1.7	1.6	1.9	2.0	1.3	1.3	1.5	1.7
Leaflet breadth (mm)	0.5	0.4	0.5	0.5	0.5	0.3	0.4	0.4	0.5
Leaf tendril type	1	6	1	5	7	9	9	4	5
Plant growth habit	4	3	3	4	3	1	2	3	3
Flower colour	1	2	1	2	2	3	4	2	2
Peduncle length (mm)	2.8	3.7	2.6	3.0	3.9	4.3	3.2	3.1	3.3
Days to flowering	81	74	78	79	77	70	70	73	75
Days to maturity	130	128	130	130	131	126	126	126	128
Pod colour	3	2	2	2	2	2	3	3	2
Plant height (cm)	68	48	56	54	52	43	39	49	51
No. of branches/plant	6.0	5.3	5.4	5.0	5.4	5.3	4.8	5.6	5.3
Number of pods/plant	133	131	93	150	79	208	94	180	133
Seed width (mm)	4.1	5.2	4.4	4.1	5.8	4.4	4.4	4.1	4.6
Cotyledon colour	3	2	3	3	2	3	3	3	3
Seed coat colour	4	2	3	4	2	1	2	2	2
Seed profile	3	4	7	5	3	1	1	4	3
Seed cot pattern	3	2	2	3	2	1	3	2	2
Seed yield/plant (g)	6.99	7.91	5.55	6.94	5.69	5.18	4.02	11.10	6.67
100-seed weight (g)	6.20	7.71	6.92	6.87	7.69	6.75	7.76	6.87	7.10

Foliage colour intensity: 1-Light, 2-Medium, 3-Dark; Leaf tendril type: 1-Absent, 2-Present; Plant growth habit: 1-Erect, 2-Semi-erect, 3-Horizontal; Flower colour: 1-White, 2-Pink, 3-Blue, 4-Violet; Pod colour: 1-Light, 2-Medium, 3-Dark; Cotyledon colour: 1-Yellow, 2-Olive green, 3-Orange; Seed coat colour: 1-Green, 2-Grey, 3-Pink, 4-Brown, 5-Black; Seed profile: 1-Elliptical, 9-Broad elliptical; Seed cot pattern: 1-Clear, 2-Dotted, 3-Spotted, 4-Marble.

