

Supplemental data for

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Source: (UPOV, 2007)

Supplemental Table 1. Morphological qualitative traits observed and their descriptive states

Traits	Crop stage	Descriptor states	Evaluation Method
Leaf glossiness	Vegetative stage	1=Dull, 2=Intermediate, 3=Glossy	Assessed visually under natural light
Leaf blade tip angle	Vegetative stage	1=Acute, 2=Obtuse	Recorded based on the angle of the leaf apex and assessed visually.
Leaf lobes	Vegetative stage	3= Shallow, 5=Intermediate	Evaluated by visual estimation of lobe depth
Leaf color	Vegetative stage	3= Light green, 5=Green	Observed on fully expanded leaves
Leaf pubescence density	Vegetative stage	3=Sparse, 5=Intermediate, 7=Dense	Assessed by visual and tactile examination
Leaf size	Vegetative stage	5=Medium, 7=Large	Categorized based on overall leaf area
Stem color	Vegetative stage	2=Light yellow, 4=Dark green	Recorded visually
Stem pubescence density	Vegetative stage	1=Sparse, 2=Medium, 3=Dense	Scored through visual inspection
Stem shape	Vegetative stage	1=Round, 2=Angular	Determined by cross-sectional appearance
Immature fruit color	Fruiting stage	1=Light green, 2=Green, 3=Whitish green	Recorded at marketable immature stage and observed visually
Fruit surface	Fruiting stage	3=Ridged, 5=Smooth, 7=Rough	Evaluated by touch and appearance
Spine color	Fruiting stage	1=Black, 3=Brown	Observed visually
Fruit set	Fruiting stage	5=Medium, 7=Good	Estimated based on number of fruits per plant
Fruit stem color	Fruiting stage	2=Green, 3=Dark green, 4=Light green	Recorded visually
Fruit shape	Fruiting stage	1=Globular, 2=Flattened, 4=Cylindrical, 5=Elliptical	Assessed visually
Blossom-end fruit shape	Fruiting stage	1=Round, 4=Depressed, 6=Pointed	Observed at fruit maturity and assessed visually

Supplemental Table 2. Morphological quantitative traits observed with descriptive states

Traits	Crop stage	Descriptor states
Days to first male flowering	Reproductive stage	Recorded as the number of days from sowing to the first appearance of the male flower
Days to first female flowering	Reproductive stage	Recorded as the number of days from sowing to the first appearance of the female flower
Length of petiole (cm)	Vegetative stage	Measured from the base of the leaf to the connected node
Leaf length (cm)	Vegetative stage	Measured from the petiole's endpoint to the tip of the leaf by scale from five leaf samples
Leaf width (cm)	Vegetative stage	Measured at the widest point from five leaf samples by using a scale
Stem diameter (mm)	Reproductive stage	Measured the plant using a digital Vernier caliper
Distance between nodes (cm)	Reproductive stage	Measured at the reproductive stage of plant using a scale
Length of peduncle (cm)	Reproductive stage	Measured from the point of attachment of the peduncle to the base of the fruit by using a scale at the reproductive stage
Peduncle thickness (mm)	Reproductive stage	Measured at the reproductive stage of the plant using a digital Vernier caliper
Fruit length (cm)	Reproductive stage	Measured from the base of the fruit to the top using a scale at the reproductive scale
Fruit breadth (cm)	Reproductive stage	Measured using a measuring tape at the reproductive stage
Total yield (t/ha)	After harvesting	Measured in tons/ha after harvest

Supplemental Table 3. Raw data of 12 quantitative traits recorded across replications in cucumber landraces

Trt	Rep	DTMF	DFFF	PTL	LL	LW	STD	DBN	LOD	PT	FL	FB	TY
CO10293	1	68	80	16.1	21.6	26.8	5.554	14.1	1.97	2.35	32.73	16.57	12.72
CO10293	2	71	83	16.4	17.3	22.4	6.5	11.1	2.83	3.55	34.7	18.43	14.26
CO10293	3	84	90	17.4	14.7	21.6	7.516	11.6	2.67	3.7	30.9	20.1	14.67
CO13538	1	80	98	14.1	17	20.9	5.672	13	2.47	2.94	29.27	18.17	9.74
CO13538	2	84	94	15.1	13.4	18.6	5.642	16.5	1.95	2.7	30.57	14.37	9.64
CO13538	3	90	93	16.54	11.9	13.7	6.042	14.6	2.17	2.68	30.17	14.47	11.28
CO13634	1	68	80	11.3	14.5	18.9	6.412	10	5.73	4.35	34.57	16.1	19.38
CO13634	2	79	86	14.3	12.2	17.34	6.532	10.4	3.93	2.73	30.63	15.53	11.08
CO13634	3	83	89	17.46	14.5	18.9	6.728	14.7	5.03	1.88	31.57	16.07	17.74
CO14242	1	79	92	12.3	13.3	15.8	4.812	9.1	3.3	2.8	32.43	17.1	10.67
CO14242	2	81	92	10.9	16.3	18.4	5.698	9.3	3.75	3.97	35.07	16.2	13.23
CO14242	3	83	93	13.7	20.6	24	6.342	11.2	3.73	3.36	29.6	14.87	8
CO14365	1	83	90	11.9	13.1	15.2	4.018	13.6	4.03	2.87	35.5	13.7	13.64
CO14365	2	84	90	16.1	17.6	22.4	4.866	12.9	3.67	2.74	33.42	14	14.26
CO14365	3	85	92	8.7	13.9	17.4	5.212	11.4	3.9	3.65	33.2	16	10.36
CO14392	1	70	83	11.6	15.6	19.8	4.926	9	2.53	5.14	31.6	14.63	12.51
CO14392	2	76	91	9.8	13.9	16	5.66	10.84	2.8	3.36	34.5	17	13.44
CO14392	3	77	97	11.7	14.78	13.94	5.202	10.1	3.83	3.44	37.4	18.1	10.15
CO14439	1	70	80	12.32	14.9	17.42	4.77	12.5	2.6	4.59	23.7	17.27	6.67
CO14439	2	73	85	7.1	12.36	12.56	5.804	10	2.6	3.44	28.5	17.2	13.74
CO14439	3	75	87	10.44	9.9	14	5.93	11.1	3.07	1.54	32.43	15.13	9.03
CO14589	1	69	79	13.4	16.6	18.1	6.172	9.2	3.63	3.7	25.63	13.73	10.97
CO14589	2	72	86	10.64	13.4	16.4	6.182	11.3	2.67	2.98	28.43	15.2	11.59

Trt	Rep	DTMF	DTFF	PTL	LL	LW	STD	DBN	LOD	PT	FL	FB	TY
CO14589	3	77	97	11	13.7	14.2	6.584	11.3	3.07	0.65	30.53	14.5	8.41
CO14765	1	79	85	19	12.5	17.6	4.428	13.2	2.55	2.93	27.9	13.87	8.82
CO14765	2	81	92	17.8	16	17.2	5.228	11.4	2.99	2.15	32.97	16.27	10.36
CO14765	3	83	97	12.5	13.7	15.8	4.744	11.5	3.23	1.27	34	14.5	11.59
Bhaktapur local	1	70	74	12.48	14.5	19.2	5.352	9.7	3.83	2.2	32.1	14.03	11.08
Bhaktapur local	2	71	79	11.2	14.2	15.1	5.966	10.7	3.67	1.45	35.37	16.73	9.33
Bhaktapur local	3	74	91	13.6	13.4	15.4	5.48	11.2	4	1.99	33.27	18.03	10.77
SIRG-024-10CU	1	87	98	10	10.9	12.9	5.052	8.5	3.23	2.29	30.73	12	8.82
SIRG-024-10CU	2	90	99	7.7	11.5	15.4	5.144	11.9	3.53	2.67	27.7	12.17	11.69
SIRG-024-10CU	3	97	102	9.4	14.2	14.2	5.934	9	4.03	2.64	28.37	14.97	7.69

Note: DTFMF= Days to first male flowering, DTFF= Days to first female flowering, LOP= Length of petiole, LL= Leaf length(cm), LW= Leaf width(cm), SD= Stem diameter(mm), DBN= Distance between nodes(cm), LPD= Length of peduncle(cm), PT= Peduncle thickness(mm), FL= Fruit length(cm), FB= Fruit breadth(cm) and TY= Total yield(t/ha)

References:

UPOV. (2007). Guidelines for the Conduct of Test for Distinctness, Uniformity and Stability for Cucumber, Gherkin (*Cucumis sativus* L.); International Union for the Protection of New Varieties of Plants: Geneva, Switzerland