

VARIABILITY IN PHYSICAL CHARACTERS OF WILD APRICOT (*PRUNUS ARMENIACA* L.)

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The scattered trees of wild apricot (*Prunus armeniaca* L) have been found growing in hilly areas of India having elevation above 1500m. But in Kinnaur district of Himachal Pradesh, which has dry climate, the wild apricot trees are growing in every village in abundance. The wild apricot has great significance to tribal people because the fruits has multi-purpose like table, extraction of liquor, oil from its kernel, feed to animals, preparation of chutney, jam, squash etc. The quality of fruit is better due to dry temperate climate. It has generated good amount of variability and some trees produce fruits as good as comparable to the commercial cultivars. Keeping in view the importance of this fruit in hilly areas of India particularly in Kinnaur, the present studies were undertaken to mark trees which produce good quality apricot for further multiplication.

The present studies were carried out during 1990 and 1991. The data were collected on fruit weight, length, diameter, volume, stone weight, kernel weight, flesh weight and flesh/stone ratio. Twenty fruits were randomly selected at maturity stage for recording data on each character. The data were analysed statistically and presented in table 1.

The distinct variation was obtained for physical characters of wild apricot in the present studies. Markov (1940) reported that average fruit weighed between 8 to 15g but occasional fruit weight was recorded upto 26g and some even had weight upto 35 to 40 g. Majority of the fruits have less flesh than the cultivated apricots but in certain forms the proportion of flesh to stone is higher than in the cultivated apricot. Lal and Sharma (1979) reported variation in fruit under mid hill conditions. Sharma and Sharma (1990) reported variation in fruit weight from, 13.0 to 24.92g, length from 2.86 to 3.42 cm, diameter from 2.77 to 3.51 and volume from 14.12 to 24.0 ml in some low

chilling apricot cultivars. Gulcan (1988) reported that fruit weight varied from 14 to 93g in a study of 56 cultivars. In a comparison of 5 local and 3 introduced varieties mean fruit weight varied from 17.2 to 33.2g in local varieties and 24.7 to 50.1g in the introductions (Shokhumorova and Gachechiladze, 1987). Sharma (1973) obtained stone from 1.08 to 3.49g, pulp from 11.18 to 21.34g and kernel from 0.64 to 1.70g in some Asian varieties of apricot.

Table 1. Variation in physical characters of wild apricot

	Mean	Range	Standard deviation	Standard error	Co-efficient of variation
Fruit weight(g)	11.31	4.0-29.3	3.217	0.449	28.39
Fruit length(cm)	2.68	1.9-3.6	0.356	0.049	13.36
Fruit diameter(cm)	2.70	1.9-3.5	0.289	0.040	10.80
Fruit volume(cc)	10.88	2.1-27.5	2.923	0.407	27.12
Stone weight(g)	1.48	0.5-2.9	0.342	0.048	23.09
Kernel weight(g)	0.40	0.2-0.7	0.072	0.010	18.09
Flesh weight(g)	9.79	3.5-21.6	2.948	0.406	29.91
Flesh/Stone ratio	6.79	2.7-15.5	1.610	0.225	24.12

In the present studies the variation in respect of physical characters of fruits may be attributed to the genetic differences in the trees due to propagation by seeds and variation from other workers may be due to agroclimatic conditions where the studies have been undertaken. In these studies the better quality of apricot produced by some of the seedlings may be due to superior genotypes in addition to favourable climatic conditions of Kinnaur.

REFERENCES

- Glucan, R. 1988. Apricot cultivars in Near East. *Acta Horticulture*. 209: 49-54.
- Lal, B.B. and Sharma, S.D. 1979. A note on fruit development and fruit drop in apricot cultivars grown in mid hill conditions of Himachal Pradesh. *Haryana Jour. Hort. Sci.* 8 (3&4): 198-189.
- Markov, N.V. 1940. Wild apricot in the Alma Ata region. *Plodovo -Jagodnye Kultursy* No. 3 p 49-51.
- Sharma, S.R. and S.D. Sharma. 1990. Studies on the physico- chemical changes during fruit development of some cultivars of apricot (*Prunus armeniaca* L.) *Haryana Jour. Hort. Sci.* 19 (1&2): 33-38.
- Sharma, O.P. 1973. Comparative study of growth, fruiting and fruit quality of some Asian varieties of apricot. Thesis submitted to Himachal Pradesh University, Shimla for M.Sc. degree in Horticulture, 100 p.
- Shokhumorova, O. and N.D. Gachachiladze. 1987. Bio-chemical features of some apricot varieties of the Western Pamirs. *Ahboreti A Kademijai Fahhoi RSS Torikistan Sci. Boi Fanhoi Biologia* No. 1 : 86-8.