Fruit Varieties Journal 53(3):146-147 1999

Three Wild Apricots of the Himalayas

J. K. SHARMA*

Abstract

The habitat, vegetative features and fruit characteristics of three apricots, viz. 'Chulli,' 'Sahara' and 'Zardalu' which grow wild at different elevations in the Himalayan ranges are described. A suggestion has been made for the inclusion of these wild forms as a genetic stock and also as agroforestry species.

Introduction

The Himalayan ranges are endowed with a very diverse flora. Among these wild growing plants there are three wild apricots known as 'Chulli,' 'Sahara' and 'Zardalu' in local dialects. These are found growing at different altitudes in this region. Each form possesses some exclusive genetic traits. So far no work has been carried out on 'Chulli' and 'Sahara.' Only some basic information is available about 'Zardalu' (2).

The present studies were carried out to record a detailed description of these wild fruits with the objective of familiarizing the horticultural research workers of other regions interested in diverse genetic resources about the occurrence of this useful germplasm.

Materials and Methods

Six representative trees of each wild apricot, comparable in size and vigour, were selected for the studies. Morphological observations were recorded on tree, foliage, flower and fruit taken from all the plants. The chemical constituents were determined from the composite sample of the fruits taken from all the six trees. Total soluble solids, sugars and acidity were estimated by the method described by A.O.A.C. (1).

Results

The salient characters of the three wild apricots are given below:

1. 'Chulli':

This is a fruit of the cold desert region neighbouring Tibet. It inhabits an area ranging between 2000 and 2500 m above sea level. This region receives an annual rainfall of 25 cm, most of which is in the form of snow. The temperature remains mostly below 0° C during the winter. The growing season is just four months. The soil is hard and shallow.

Tree: Spreading, round topped, height 5.9 m, spread 5.6 m, trunk girth 55.6 cm, bark reddish brown.

Leaf: Broadly ovate, apex cuspidate, base cordate, emerging leaves dark red, surface pubescent, length 6.8 cm, breadth 5.7 cm; petiole, pubescent, red, length 2.8 cm; glands, orbicular, dark tan, three in number.

Flower: White with pink tinge, diameter 2.9 cm; stamen number 39, length 1.0 cm; style, straight, yellow-white, length 1.2 cm.

Fruit: Round, deep yellow with red blush, length 1.2 cm, breadth 1.6 cm, weight 12 g, T.S.S. 13.5%, acidity 2.2%, total sugars 5.5%, reducing sugars 3.6%, non- reducing sugars 1.9%. Stone, ovate, free, length 1.9 cm, breadth 1.6 cm; kernel, ovate, length 1.5 cm, breadth 1.1 cm.

2. 'Sahara':

This grows in relatively low hills ranging in elevation between 800 and 1200 m above sea level, having mild temperate climate with annual precipitation of about 180 cm.

Department of Fruit Breeding and Genetic Resources UHF Nauni, Solan-173230 (HP) - India.
*Present Address: Assistant Professor, Punjab Agricultural University, Krishi Vigyan Kendra, Bahowal, Hoshiarpur (PB)- India 146 105.

Tree: Spreading, height 7.3 m, spread 7.1 m, trunk girth 68.6 cm, bark reddish brown.

Leaf: Ovate to obovate, apex mucronate, base obtuse, emerging leaves light red, upper surface glabrous, lower surface pubescent, length 7.5 cm, breadth 5.7 cm; petiole, glabrous, reddish yellow, length 3.1 cm; glands, orbicular, tan, four in number.

Flower: White with pink tinge, diameter 3.1 cm; stamen, number 33, length 0.9 cm, style, straight, white with purple tinge, length 1.6 cm.

Fruit: Round, yellow, length 2.1 cm, breadth 1.9 cm, weight 9.5 g, T.S.S. 10.6%, acidity 2.6%, total sugars 4.9%, reducing sugars 4.8%, non-reducing sugars 0.1%. Stone, ovate, surface smooth, cling stone, length 1.5 cm, breadth 1.3 cm; kernel, ovate, length 1.1 cm, breadth 0.9 cm.

3. 'Zardalu':

This wild apricot grows in mid-hills between 1200 and 1500 m above sea level. This region receives about 150 cm rainfall.

Tree: Spreading, height 7.8 cm, spread 7.5 cm, trunk girth 70.6 cm, bark dark brown.

Leaf: Broadly ovate, apex cuspidate, base cordate, emerging leaves light red, upper surface glabrous whereas lower surface pubescent, length 7.7 cm, breadth 6.9 cm; petiole, pubescent, yellowish green, length 3.3 cm; glands, orbicular, tan, three in number.

Flower: White with pink tinge, diameter 3.7 cm; stamen, number 29, length 0.9 cm; style straight, white with greenish tinge, length 1.4 cm.

Fruit: Round, light yellow, length 2.9 cm, breadth 2.8 cm, weight 13.5 g, T.S.S. 15.6%, acidity 1.3%, total sugars 6.2%, reducing sugars 4.3%, non-reducing sugars 1.8%. Stone, ovate, surface smooth, stone-free, length 2.2 cm, breadth 1.8 cm; kernel, ovate, length 1.5 cm, breadth 1.0 cm.

Utilization

1. 'Chulli':

It is a wild plant from a cold desert region and has the capability to withstand this harsh climate and shallow soils. This is a late ripening apricot and its fruits mature about three weeks after the fruits of commercial cultivars of the region. One very interesting trait of this type is its prolific bearing habit. The fruits are borne more or less in bunches, a behaviour not found in commercial apricots. The kernel is sweet in most cases. All these traits are quite useful and could be utilized for evolving new varieties through hybridization.

2. 'Sahara':

This wild form requires less chilling and can grow in relatively warmer climates. The fruits ripen a fortnight earlier than the commercial cultivars. The stone is very small in comparison to commercial varieties. 'Sahara' might be utilized for breeding cultivars with low chilling requirements and early ripening.

3. 'Zardalu':

The fruits of this plant resemble very closely those of the cultivated apricots. The plant flourishes well even on the neglected and denuded sites. The plant can withstand inclement weather conditions and is also tolerant to frost and drought. Even under such conditions the plant gives appreciable yield. However, there is some bitterness, though very mild, in the pulp. This form can be exploited for commercialization by making some improvement in the fruit quality. It can also be suitable for agroforestry.

Availability

A small quantity of the seed of these three forms, for trial purpose, may be obtained from the author.

Literature Cited

1. A.O.A.C. 1970. Official methods of analysis of the Association of Official Analytical Chemists. A.O.A.C. Benjamin Franklin Station, Washington, D.C.
2. Parmar, C. and M.K. Kaushal, 1982. Wild fruits of the Sub-Himalayan region. Kalyani Publishers, New Delhi, Ludhiana.