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Proximate Composition of Apricot (*Prunus armeniaca*) *cul*. Halmun in Cold Region of Ladakh

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ABSTRACT

Ladakh, the cold arid region of Jammu and Kashmir, India, is geographically located between 32°5′ to 36° north latitude and 75°15′ to 80°15′ east longitude. It is comprised of the Kargil and Leh districts of J & K state spread over a geographical area of 96,701 km^2 (accounting for 43% of the area of the state and 75% of the cold arid region of India). Prunus armeniaca is commonly known as apricot and belongs to family Rocaceae. The apricots are sweet to taste and used in the preparation of jams, jellies, squashes. Present study was carried out to know the proximate composition of apricot fruit variety Halmun. Apricot fruit consisted of moisture, crude protein, crude fat, crude fiber and ash as83.38±2.53, 3.00±0.10, 1.33±0.05, 2.29±0.24, 4.64±0.15 respectively.

Keywords: *Apricot, proximate, moisture, Halmun, Leh*

INTRODUCTION

Apricot is a climacteric fruit with a very short storage life due to a high respiration rate and a rapid ripening process (Egea, et al., 2007). Apricot is a costly fruit and is not available as a raw material in many countries. Due to this, there is scope for fabricating apricot-based products in order to meet the market requirements and earn profit. Apricot-based products are highly appreciated in the market due to their specific taste, aroma, and nutritive value. To extend the shelf life of apricot, different preservation methods have been developed including canning, freezing, drying, packaging in controlled atmospheric packages (Jimenez, et al., 2008), and processing into different products. However, it must be borne in mind that processing can change the concentration of nutrients.

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The loss of nutrients in fruits and vegetables depends on the type of food, processing time, processing temperature, and storage conditions (Murcia et al., 2001, Murcia et al., 2000, & Murcia et al., 1992).

Some preservation methods are also believed to be responsible for depleting the naturally occurring antioxidants in the foods, with a subsequent decrease in their health-protecting capacity (Kalt, 2005). Apricot varieties have the potentials to carry out various biological activities such as anti-mutagenic, inhibitory activity for various enzymes, antimicrobial, cardio-protective, anti-nociceptive, anti-inflammatory and antioxidant activity desirable for human health. Antioxidant potential of apricot is quite high due to its richness with polyphenolic content displayed in both *in vivo* and *in vitro* test systems (Vinson et al., 2005). Apricot is a good source of dietary fiber which is beneficial to balance the body glucose level Individuals using dietary fiber rich diet plan show considerably low risk perspective of certain gastrointestinal diseases, obesity, coronary heart diseases, diabetes, hypertension and stroke. The fructose in apricots is an alternative source for low glucose index (GI) sugars (Mirmiran et al., 2009).

The percent composition for moisture, crude protein, crude fat, crude fiber and ash content of mashed apricot were performed as described by AOAC (1995). Crude protein was estimated by using micro-kjeldahl method, AOAC (1995) using the factor 6.25 for converting nitrogen content into crude protein. For crude fat content, 5 g sample was placed in Soxhlet extraction apparatus and subjected to extraction for 6 h using petroleum ether as solvent and percent fat content of samples were calculated on a weight basis. All the tests were carried out in triplicates.

Proximate analysis has vital role in chemical composition of any commodity. Proximate composition (Table 1) showed that apricot contains moisture, crude protein, crude fat, Crude Fiber and ash as 83.38±2.53, 3.00±0.10, 1.33±0.05, 2.29±0.24 and 4.64±0%, respectively. The present results regarding proximate composition of fruit are in close proximity with the investigation of Haciseferogullar et al. (2007) they showed the percentage of moisture, crude protein, crude fat, crude fiber and ash in apricot fruit as, 82.23, 2.84, 1.04, 2.41 and 5.34% respectively. Later, Ali et al. (2011) investigated the chemical composition of apricot and observed that apricot contain 85±0.1% moisture, 8.25±0.143% crude protein, 3.00±0.10% crude fat, 11.85±0.66% crude fiber and 9.25±0.024% ash Similarly, Akinci et al. (2004) determined that the apricot contains moisture (82.1%), crude protein (3.59%), crude fat (0.55%), crude fiber (1.55%) and ash (3.15%). The data regarding proximate composition in current study is also in accordance with previous finding of Baryeh (Egea, 2007) observed the composition of apricot fruit as 79.79, 4.8, 0.78, 0.77 and 3.07% for moisture content, crude protein, crude fat, crude fiber and ash contents, respectively. However, the chemical composition of apricot varies with the growing conditions like climate, season, agricultural practices, variety and age 6 (Lin et al., 2003).

Table 1: Proximate composition of apricot fruit

S. no.	Parameter	Results
1	Moisture	83.38±2.53
2	Crude protein	3.00±0.10
3	Crude fat	1.33±0.05
4	Crude fiber	2.29±0.24
5	Ash	4.64±0.15

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