



## HPLC QUANTIFICATION OF THE CHEMICAL CONSTITUENTS FROM INDIGENOUS FRUITS AND VEGETABLES OF INDIAN HIMALAYAN REGION

Tanveer Alam<sup>1</sup>, Murtaza Gani<sup>1</sup>✉, Rukhsana Rahman<sup>2</sup>, Khalid ul Islam Rather<sup>3</sup>

<sup>1</sup>Department of Chemistry, KLDV PG College Roorkee Uttarakhand, Affiliated to Department of Chemistry, HNB Garhwal University Srinagar (Garhwal) Uttarakhand India.

<sup>2</sup>Division of Food Science and Technology, Shere Kashmir University of Agricultural Sciences & Technology, Jammu, India.

<sup>3</sup>High End Instrumentation Lab, Public Health Laboratory Dalgate Srinagar J & K India.

✉[kmurtazakmg@gmail.com](mailto:kmurtazakmg@gmail.com) & [tanvdav@gmail.com](mailto:tanvdav@gmail.com)

<https://doi.org/10.34302/crpfjst/2021.13.3.7>

---

### Article history:

Received:

15 May 2021

Accepted:

2 August 2021

---

### Keywords:

Analysis;

Crops; Gradient;

HPLC;

Minor;

Phytochemicals.

---

### ABSTRACT

The purpose of the present work was to determine the phytochemical profiles by HPLC of the indigenous fruits and vegetables. The phenolic contents showed diverse variation in the selected fruits and vegetables. Development of genuine and dependable analytical methods with profile marker phytoconstituents in an extract containing a mixture of several components is a challenging task. A simple, rapid, precise and reliable HPLC method was developed for the quantification of phytochemicals from the extracts of selected minor fruits and vegetables. The *Taraxacum officinale* genus comprised a mixture of different bioactive compounds belonging to different chemical types, such as flavonoids, sesquiterpenes, triterpenes, phenolic acids, sterols. *Malva neglecta* contains different compounds including several phenolic acids, flavonoids and some non-phenolic compounds. Caffeoylquinic acids (3-, 4-, and 5-O-caffeoylquinic acids and 3,5-dicaffeoylquinic acid) are mainly present in *Cydonia oblonga* pulps. Three different hydroxycinnamic acid derivatives (neochlorogenic acid, p-coumaroylquinic acid and chlorogenic acid) were detected and quantified in *Prunus avium*.

---