



# Factors affecting the efficacy during collection of plant raw material

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## ABSTRACT:

Ayurveda 'the science of life' is a holistic system of medicine from India. All types of plant raw material having all panchmahabhuta. To prepare standard quality of medicines, it is incumbent to collect raw material very carefully. In ancient period, Seers used to collect raw material properly and carefully from different Desha such as Vindhya Desha (Ushna virya Aushadha) , Himalaya Desha (Sheet Virya Aushadha), Ritu (In sharad-panchang), Bhoomi(apya,agneya etc.), Nakshatra (pusya and ashwina), and kala. They prepared effective single or polyherbal medicines for various disorders successfully by following all parameters mentioned above. At the present time, collection of raw material is not properly done as well as manufacture unit do not care about desha,kala,ritu,bhoomi,awastha etc. In this review, it is tried to elaborate the methods to collect the plant raw material that could improve its quality to produce effective herbal medicines.

**Key words:** Aushadi, Ayurveda, collection, raw material

## INTRODUCTION

The creation, collection, or extraction of raw material for the production of goods and services, especially directly from natural environment. The collection of plant raw material plays an important role to prepare ayurvedic herbal preparations. Collection of plant raw material mainly depends on the part we collected. Acharyas already explained which type of soil, kala,nakshatra etc. are useful in collection of plant raw material. It should be free from pests (Krimi), poison (Visha), weapon(Sastra), extreme sunlight (Atapa), high breeze (Pawana), fire (Dahana), excessive moisture (Toya), diseases (Sambadha) and roadsides(Marga). It must have single predominant well developed taste , strong and deep rooted in the soil.<sup>1</sup> This type of herbs grown in the Northen side should be collected for herbal or polyherbal preparations.

## MATERIAL AND METHODS

An individual who wants to collect the plant raw material should follow the all ritual procedures which is mentioned in classical texts, must be clean and skillful, should wear white cloths and should perform prayer earlier to collection and individual must be fasting overnight<sup>2</sup>. Then, the useful part shall be collected either from the East side or North side. According to Acharyas, the properties of plant raw material is affected by specific desha, bhoomi, nakshatra, kala, and ritu.

**1.Desha<sup>3</sup>**- Three types of desha mentioned in classical texts by Acharyas:

- Jangala desha (Dry areas)- predominant of vata dosa
- Aanupa desha (Wet areas)- predominant of kapha dosa
- Sadharana desha (balanced areas)- predominant of pitta dosa

Jangala desha- area with clear sky, have tree like Khadira, Aamalaka etc., full mirage, small ponds with little water, more dry area. Charaka considered jangala desha as the best among the areas. This climate does not allow diseases to spread and good for health.

Aanupa desha- this type of area having trees like Narikela, Kadali etc., lakes and seas, cool breeze, full of trees. Charak mentioned that Aanupa desha is not good for health.

Sadharana dsha- All characteristics of both Jangala and Aanupa desha described above, be seen in this area.

**2. Bhoomi<sup>4</sup>**- Acharyas was divided bhoomi into five types:

- Parthiva Bhoomi- Heavy rocks, grayish or blackish color soil, and huge trees are present.
- Aapya Bhoomi- Smooth soil, full of water and grass, delicate trees, and whitish soil are present.
- Aagneya Bhoomi- Different colors of soil, lighter, mixed with plenty of stones, and smaller trees are present.
- Vayaviya Bhoomi- Rough and ash colored stones, lean and small trees, and xerophytes are more seen in this type of soil.
- Akasiya Bhoomi- Sandy, tasteless water, dry trees, trees grow near rocky mountains are seen and soil is grayish-black in color.

**3.Disha<sup>5</sup>**- According to Acharyas, plant raw material should be collected either from the East side or North side, and said that potency and efficacy found in this direction because moon is Swami of north side and sun of East side gives power to Aushadhi.

**4. Nakshatra-** Collection of plant raw material should be done in Pushya and Aashwina nakshatra because moon is the God of Aushadhi(plants) and it is the God of Pushya and Margshira. That is why this time period moon is predominant over them and transmits more rasa in plant drugs. Therefore, in this time period, medicinal plants are more effective.

**5. Ritu-** The plant raw material used in Ayurveda should be collected according to part used and season.

**According to charaka<sup>5</sup>**

Part used	Season
Tender leaves and branches	Varsha and Vasant ritu
Root of tree which have shed	Which are Ushna veerya in sisira for plant which are off leaves and regenerating fresh leaves- Sheet Veerya
Bark, Tubers, and latex	Sharad ritu (late autumn)
Heart wood and sapwood	Hemanta ritu (early winter)
Flowers and Fruits	According to season

**According to Sushruta<sup>6</sup>**

Part used	Season
Root	Pravitta ritu (Betwween summer and rainy season)
Leaves	Varsha ritu(during rainy season)
Bark	Sharad ritu(late autumn)
Latex	Hemanta ritu(spring)
Heart wood	Vasanta ritu (spring)
Fruit	Greeshma ritu(summer)

**According to Raj Nighantu<sup>7</sup>**

Part used	Season
Tubers and rhizomes	Hemanta ritu
Root and leaves	Sisira ritu
Flower and fruit	Vasanta ritu
Tender leaves	Greeshma ritu
Panchanga	Sharad ritu

**Collection of Plant Raw Materials According to Season**

S.N.	Paryojyanga	Charaka Kalpa Chapter 1	SushrutaSutra Chapter 37	Raj Nighantu Chapter 2
1.	Mula(Root)	Greeshma,Sisira	Pravitta	Sisira
2.	Palasa(Tender leaves)	Varsha,Vasanta	-	Greeshma
3.	Shakha(Branches)	Varsha,Vasanta	-	-
4.	Pushpa(Flower)	As per season	-	Vasanta
5.	Twak(Bark)	Sarad	Sarad	-
6.	Ksheera(Latex)	Sarad	Hemanta	-
7.	Sara(Sapwood)	Hemanta	Vasanta	-
8.	Phala(Fruit)	As per season	Greeshma	Vasanta
9.	Kanda(Tuber or Rhizome)	Sarad	-	Hemanta
10.	Patra(Leaves)	-	Varsha	Sisira
11.	Panchang	-	-	Sarad

## DISCUSSION

Acharyas have different opinions about the collection of plant raw material for Aushadhi purpose. According to Sushruta, the collection of raw material should be done as the season(ritu) and potency(Veerya).<sup>8</sup>

- 1.Soumya Aushadha (Sheet Veerya Dravya)- In Soumya ritu (cold season), i.e. in Varsha, Hemanta, and Sisira.
2. Aagneeya Aushadha (Ushna Veerya Dravya)- in Aagneeya ritu (Hot season), i.e. Sarad, Varsha, and Greeshma.

According to Chakrapani, the roots of ushana veerya dravyas will be collected in summer and sheet veerya dravyas in winter season.

According to Sarangdhara<sup>9</sup>, collections of Aagneeya dravyas (Ushana veerya dravyas) from Vindhya desha and soumya dravyas(sheeta veerya dravyas) from the Himalaya reason.

In ancient time, our Acharyas use to collect the raw herb from natural forests and hills from their natural habitat. At present time, due to deforestation, artificial cultivation of medicinal plants has become a trend and trend. It is yet to need to observe the efficacy of artificially propagated herbal drugs with respect to their efficacy and potency<sup>10</sup>.

## CONCLUSION

The main aim of the collection of raw material of plants is to ensure the quality and efficacy of ayurvedic medicines. By adopting good measures of drug collection, we can get medicines with better efficacy and potency. The study of proper methods of collection of medicinal plants is a need of time. Properly identified, collected drugs can be considered “pure”. These medicines with better efficacy and potency, will be able to fight the ailments in better way.

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