



## **Review on Herbal Immune Booster Syrup.**

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### **ABSTRACT**

Immunity is the ability of the human body to recognize bacteria to prevent them from causing disease. The disease Covid-19, which has spread very quickly in recent days, has caused at least 3 million people in 2020, which is an additional death in 2020. It has infected more than 82 million people worldwide and mainly affects the respiratory system. As the Ministry of Ayush guidelines have advised you to take “herbal health drinks” like syrups to boost immunity. The syrup contains all the herbal medicines that have immune boosting and health benefits like ashwagandha, tulsi, giloy, amla, ginger, fennel and turmeric etc. also contains jaggery as its main ingredient which is added in liquid form, it works as a good immunity booster and also as a syrup base. Jaggery also works as a good preservative in food preservation. Immunity is the ability of the human body to recognize bacteria to prevent them from causing disease. The disease Covid-19, which has spread very quickly in recent days, has caused at least 3 million people in 2020, which is an additional death in 2020. It has infected more than 82 million people worldwide and mainly affects the respiratory system. As the Ministry of Ayush guidelines have advised you to take “herbal health drinks” like syrups to boost immunity. The syrup contains all the herbal medicines that have immune boosting and health benefits like ashwagandha, tulsi, giloy, amla, ginger, fennel and turmeric etc. also contains jaggery as its main ingredient which is added in liquid form, it works as a good immunity booster and also as a syrup base. Jaggery also works as a good preservative in food preservation.

Keyword:- herbal syrup, herbal plant, immune booster, jaggery base immunity booster syrup

### **Introduction**

Immunity is the ability of the human body to recognize bacteria to prevent them from causing disease. The disease Covid-19, which has spread very quickly in recent days, has caused at least 3 million people in 2020, which is an additional death in 2020. It has infected more than 82 million people worldwide and mainly affects the respiratory system. As the Ministry of Ayush guidelines have advised you to take “herbal health drinks” like syrups to boost immunity. The syrup contains all the herbal medicines that have immune boosting and health benefits like ashwagandha, tulsi, giloy, amla, ginger, fennel and turmeric etc. also contains jaggery as its main ingredient which is added in liquid form, it works as a good immunity booster and also as a syrup base. Jaggery also works as a good preservative in food preservation. Immunity is the ability of the human body to recognize bacteria to prevent them from causing disease. The disease Covid-19, which has spread very quickly in recent days, has caused at least 3 million people in 2020, which is an additional death in 2020. It has infected more than 82 million people worldwide and mainly affects the respiratory system. As the Ministry of Ayush guidelines have advised you to take “herbal health drinks” like syrups to boost immunity. The syrup contains all the herbal medicines that have immune boosting and health benefits like ashwagandha, tulsi, giloy, amla, ginger, fennel and turmeric etc. also contains jaggery as its main ingredient which is added in liquid form, it works as a good immunity booster and also as a syrup base. Jaggery also works as a good preservative in food preservation.:- herbs are used base of medicine in many ways in human

Being in their life, biological products of animals and plants sources have been used by human for thousands of year either in the pure forms or crude extract to treat many diseases. Herbs that possess immune stimulating properties as useful features

It is an evident from the human history the medicinal plants have been treatment regimen to cure a variety of diseases including diseases caused by insects, fungi, bacteria and viruses. The entire globe is concerned about this pandemic sickness

(COVID-19), and no effective therapy or vaccine has been discovered. Compounds including antioxidants, phytochemicals, and anti-inflammatory assist the immune system fight viruses, according to the literature [1].

Herbs like Brahmi and Kesar also help to improve circulation in the brain and extremities. Giloy, also known as amrita, has hepatoprotective and antibacterial properties. Some studies have also suggested that it has anti-cancer properties. Kuth and Ashwagandha have steroid-like properties without the negative side effects associated with traditional steroids. Bala has a stimulating effect because it contains alkaloids that operate similarly to ephedrine and pseudoephedrine. Amla is known for its antioxidant capabilities as well as its high vitamin C and bioflavonoid content, which aids in cell structure health [3].

## SYRUP

Definition:- A thick, sweet liquid made by dissolving sugar in boiling water, often used for preserving fruit.



Fig:-1

### Type of syrup:-

- 1. Simple Syrup:- If only purified water is used to prepare the sucrose solution, the preparation is called & quot; syrup, andquot; or "simple syrup - sucrose syrup
- 2. Medicated syrup:- If the syrup contains medicinal substance, it is called Medicata Tusirop, Syrup of Ipecae.
- 3. Flavoured Syrup Syrups that contain flavorings but not medicinal substances are called flavorings; to contain Flavoured/flavored - flavored syrup (cherry and raspberry syrup).

### Advantages of Syrup :-

1. The syrup contains many antimicrobial, antioxidant, antipyretic properties of the syrup
2. Suitable for all patients regardless of age
3. The most natural and easiest way of administration
4. Economical and safe for the patient
5. For some types of products, such as cough medicines, a liquid dosage form is assumed
6. Strengthen the defense system against colds and flu viruses.

### Disadvantages of syrup:-

1. Not suitable for diabetics.
2. Children may accidentally take the extra dose as a pleasant taste
3. Concentration, if not adequate, causes microbial growth.
4. Not suitable for emergencies or unconscious patients.

Uses:- Thanks to its antioxidant properties, it is an ideal Ayurvedic tonic to strengthen immunity. its properties strengthen immunity and reduce the probability of recurring diseases

It reduces the recurrence of various infections from various causative factors Strengthens the liver and has protective properties Fights fatigue and gives strength even in old age Natural immunomodulator strengthens the immune system Regenerative flights weakness during rehabilitation

Table-1

Sr.no	Drug name
1	Ashwagandha
2	Guduchi
3	Amla

4	Shatavri
5	Clove
6	Tulsi
7	Nutmeg
8	Fennels
9	Dried ginger
10	Turmeric
11	Wheatgrass
12	Beet root

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### Following use in ingredient herbal syrup

#### 1. Ashwagandha

Ashwagandha contains chemicals that might help calm the [brain](#), reduce swelling, lower [blood pressure](#), and alter the [immune system](#).

Biological source :- Ashwagandha is derived from the root of the *Withaniasomnifera* plant

Family:- *Withaniasomnifera* plant

Synonym:- Balya, vajikari

Parts use:- leaf and berries

Plant preparation:- ashwagandha powder, tincture

• Uses:- : increase your human immunity, increase male fertility and testosterone levels, support heart health.



Fig:-3

Aswagandha powder:-



Fig:-4

2 Guduchi:- *Tinospora cordifolia* (common names gurjo, duram wood, guduchi or giloy) is a genus of herbs native to the tropical regions of the Indian subcontinent.[1] It has been used in Ayurveda to treat various ailments, but there is no evidence that such treatment is effective.

Family: Menispermaceae

Synonym: - Amrita

Management part: - stem.

Properties: supports the immune system Memory booster, anti-cancer, anti-inflammatory, anti-aging, immunity tonic, digestive, antioxidant, antidiabetic.



Fig:-5

3 Amla:- Amla is an excellent source of vitamin C, so it helps boost your immunity, metabolism and prevents viral and bacterial diseases including colds and coughs. Its nutritional profile is also full of various polyphenols known to fight the development of cancer cells. Biological source: consists of both dry and fresh plant fruits

Family: Euphorbiaceae

Synonym: -*Emblica officinalis*

Part of use: - dried fresh fruits

•Properties:increases your resistance, Increases the immune system. Amla juice is an excellent source of vitamin C, a water-soluble vitamin that acts as an antioxidant and can increase hair growth.



Fig:5

4. Shatavari:- Shatarav is considered to be the most useful Ayurvedic herb for unique health problems of women. Shatarav root powder is traditionally used by women to support fertility and lactation by increasing blood flow throughout the female reproductive system and supporting normal estrogen (hormone) production and use.

Biological source: From *Asparagus racemosus* Willd., a member of the Liliaceae family. from the dried tubers of the species

. Family: - asparagus

Part of use: - dried roots

Properties: - helps relieve coughs, reduce mood swings, supports the normal functioning of the immune system and digestive



Fig:6

5. Clove:-Bunches are full of antioxidants. These compounds help your body fight free radicals that damage your cells and can cause disease.

Biological source: consists of dried flower buds of *Eugenia caryophyllus*

family: Myrtaceae.

Synonym: - Carnations

Part of intended use: -dried flower buds, leaves, stems

Properties: - relieves cough, rich in antioxidants. May promote bone health, may help regulate blood sugar, contains important nutrients



Fig:7T

6. Tulsi:- Tulsi is a wonderful shrub known as the queen of herbs Biological Source: Consists of fresh and dried leaves of *Ocimum Sanctum* Linn.

Family: - Lamiaceae.

Synonym:- Holy basil, holy basil,, Tulas

Uses:- leaves and flower

Properties: - antimicrobial (including antibacterial, antiviral, antifungal) Improves the digestive system, benefits the skin and hair, helps to overcome stress. Tulsi is a natural plant with anti-stress properties.



Fig:8

7. Nutmeg:- Nutmeg is the scent or spice of several species of the genus *Myristica*



Biological Source:- It consists of the dried kernels of the seed of *Myristica fragrans* Houtti

Features: - Contains powerful antioxidants. Although the seeds are small in size, the seeds from which nutmeg comes are rich in plant compounds that act as antioxidants in your body, with anti-inflammatory properties and cleansing properties.



Fig:-9

8. Fennel:- Fennel is a species of flowering plant belonging to the carrot family. It is a hardy perennial herb with yellow flowers and feathery leaves.

Biological source: consists of dried, ripe fruits of *Foeniculum vulgare*

Family: - Umbelifera

Part of use: - dried seeds

Properties: - It has an anticonvulsant effect Helps lose weight, Increases immunity, Detoxifies the body, Balances hormone levels, Helps reduce inflammation Good for the eyes, Helps lower blood pressure, Treats respiratory problems



Fig:-10.

9. Ginger:-

Ginger is a flowering plant whose rhizome, ginger root or ginger is widely used as a spice and in folk medicine. It is a herbaceous perennial that grows annual pseudostems about one meter long with narrow leaves.

Biological Source: - Ginger consists of the rhizomes of *Zingiber officinale* and is dried in the sun.

Family: Zingiberaceae.

Parts Used: Rhizome (often called root)

Plant energy: fresh rhizome (warming, drying), dried rhizome (warming, drying)

Herbal properties: anti-inflammatory, dispersive, stimulant, diaphoretic, stimulant expectorant, carminative, anodyne, antimicrobial, blood moving.

Herbal Uses: Arthritis, Migraine, Cold and Flu, Nausea, Dysbiosis, Menstrual Cramps (due to stagnation), Ear Infections, Heart Health, Inflammation, Stomach Disorders

Herbal Preparations: Culinary, Decoction, Powder, Tincture, Candied, Fresh Juice



Fig:-11

10. Turmeric is a very popular spice that originates from India and is used in kitchens around the world to bring a wonderful color and unique flavor to food. Turmeric is also known as the "golden spice". and "Indian Saffron" for its color and properties. You can see all the information about turmeric

Biological source: - Turmeric is the dried rhizome of the *Curcuma Linn*

family: - Zingiberaceae.

Area of use: - rhizome

Properties: - Analgesic, antioxidant, astringent, circulatory, carminative, cholagogue, homeostatic, inflammatory regulator, immune system modulator, vulnerary

Herbal uses: - Anti-inflammatory properties, prevents cancer, helps prevent arthritis, improves digestion, helps control diabetes, strengthens the immune system, cleanses the liver, promotes weight loss, helps heal wounds.



Fig:-12

11. Wheat grass:- Wheatgrass juice is often available at juice shops, and some people grow and make their own juice at home. It is available as a fresh product, tablets, frozen juice and powder. Wheatgrass is also sold as a spray, cream, gel, massage cream, and liquid herbs.

Biological Source: - Wheatgrass is also the name of the sap of the seedlings of true wheat *Tritium aestivum* Family: - Poaceae

In use: - leaves

Features: - Strengthens immunity, anti-inflammatory and antioxidant

Properties: cholesterol and weight control, supports cancer prevention, blood sugar balance, healthy metabolism



Fig:-13

## 12 Beet root:

Beet is the root part of the sugar beet plant. Beet comes from the same family as sugar beet. However, it differs genetically and nutritionally. Sugar beet is white and is often used by manufacturers to extract sugar and sweeten processed foods.

Botanical name: -beta vulgarie

Family: Chenopodiaceae

Properties: - Beets and beet juice have been associated with many health benefits, including improved circulation

1:-



Fig:-14

### **METHOD:**

Herbal syrup by decoction method

Weighing Accurately for preparator

- Get to the Ashwagandha Powder first unto 20m

(Increased Energy Level)

- Add guduchi in it 2pm

(Immodulatory)

- Adding Amla powder 10gm

(Impove Immunity)

- Adding shatavari 20gm (Immunity Booster)
- Adding Turmeric 0.82m

(Aids Digestion)

- Adding extraction of Tulsi 4ml

(Antioxidant)

- Adding extraction Wheat grass 2ml

(High In Nutrient)

- Adding ginger juice 0.06ml

(Decrease Inflammation)



- Adding Beet Root Juice 20ml

(Colouring Agent)

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### Evaluation of the syrup

The syrup is subject to the following evaluation parameters:

- Physical stability: The syrup should be clear. There should be no solid particles in the syrup.
- Light transmission test: A light transmission meter is used to check the color of the syrup. Here, the color of the syrup sample is checked by passing light through the sample. The percentage of light transmitted is compared to the light transmission ratios of different qualities.
- pH measurement: The pH of the syrup is measured with a pH meter, which should be between 6-7. Solvency:
- Stability :The solubility of the syrup is determined and it must be soluble in water. Refractive index: The refractive index of the syrup is determined and should be between 1.4608.
- Determination of sucrose content: Sucrose content is very important in syrup because a high amount of sucrose in the syrup can cause the syrup to crystallize, while a low amount can cause the syrup to lose its preservative properties. The concentration of sucrose in the syrup is determined by HPLC or UV spectrophotometer analytical tools. Unity of content: Here we take 10 containers of syrup and the empty contents of each container. Then determine the drug analysis of the contents of each container using the method described in the drug monograph of the pharmacopoeia. The preparation meets the requirements of the test if at most one value is 85-115% outside the average limit and no value is 75-125% outside the limit. If 1-3 values is 85-115% outside the limit, but none falls outside the average 75-125% limit, the test is done with another 20 tanks. In this case, a maximum of 3 values can be outside the value 85-115% limit and nothing should be 75-125% middle limit.

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### Conclusion:-

immune responses through the stimulating or suppressing effects of akit extract can help maintain a disease-free state in normal or unhealthy individuals. Agents that activating the host's defense mechanisms in the event of a weakened immune response, can provide additional therapy to conventional chemotherapy. the mechanism must be weakened in conditions of a weakened immune response, if an immune response is desired, for example in the context of an autoimmune disease.

The importance of medicinal plants as complementary and alternative medicine increases the development of the pharmaceutical industry along with research and development in the field of drug development. The increase in the number and quality of new and more effective biological, synthetic and semi-synthetic pharmacological products has not affected the importance of natural products in medicine, especially in developing countries. A. racemosus is a very useful medicine from the stream of Ayurveda. A number of studies have been carried out on this plant, showing its usefulness as a promising agent in alternative therapies. The phytochemicals and pharmacology of this drug provide useful scientific information to consider it important Ayurvedic medicine for many diseases. The review may include drug-specific information.

More research is needed to determine if Withaniasomnifera can reproduce this effect in humans and to determine the optimal dosage range to achieve these effects. The potential beneficial effects of Withania on anxiety, cognitive and neurological disorders, inflammation,

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