

# **SAFED MUSLI SAFE HERBAL APHRODISIAC**

## **OVERVIEW**

**Safed Musli** : Chlorophytum borivilianum (Santa Pau & Fernades)

Class Aphrodisiac Adaptogen Anti-ageing Health restorative & Health Promoting

## **SOCIAL VALIDATION**

Safed Musli is a potent herb whose root tubers have been in use for aphrodisiac and health promotion purposes since 11th century A.D.(Ref: Sarngadhar Samhita) in India. It brags of copious reference in many Ayurveda classics like Charaka Samhita(2nd Century B.C.), Sushmta Samhita(2nd century A.D), Raja Nighantu(17th century A.D), etc.

## **CLASSICAL OVERVIEW**

Ayurvedic Materia Medicas (Nighantus) state Safed Musli to be an Urjaskar i.e. health restorative and promoting herb.

Ayurveda classifies the herbs basically into two types-

### **i. URJASKARA (HEALTH RESTORATIVE & PROMOTIVE) :**

These herbs are primarily meant for maintaining and enhancing the status of homeostasis alongside curing some diseases.

### **ii. ROGANUT (DISEASE CURATIVE) :**

these herbs are primarily employed to cure some particular diseases.

Safed Musli is a rare divine-graced herb to offer all the effects required for achievement of health par excellence or for attaining the ultimate positive health i.e., Balya - provides energy to each cell, Rasayana-rejuvenates the entire body –mind –soul complex, Vrishya- effectuates both qualitative and quantitative increase in Shukra – the terminal dhatu of the seven physiological systems (dhatus) – the ayurvedic equivalent of semen with sperm and spermatozoa, resulting in experiencing bliss in sexual intercourse and produce better progeny.

Empowered with all these properties Safed Musli endows the user with a state of the physical harmony - the equipoise of Dosha-Dhatu-Mala so as to render this microcosm to interplay in symphony with the macrocosm. This state of harmony is known as the ultimate repose of human.

Safed Musli supports physiological balance or homeostasis. It improves access to energy stores, helps to improve stamina and resistance to stress and tiredness, helps in mobilization of the body's nutritional resources, helps to normalise various indices such as blood pressure, or blood sugar, and improve function and well being.

Although their action is primarily supportive and restorative, but it treats male sexual inadequacies like oligospermia, lack of libido, impotency, etc., It appears to assist the hormone control systems of the body making them more efficient. Since these hormones are 'conductors' of the entire orchestra of physiological process their effect will cascade throughout the body.

Safed musli can help during times of extra stress, demand or weakness which indicate that our inner balance has taken a knock. Whether this is in healthy people who are pushing their body to its limit, such as during sports, or in times of difficulty, such as in recuperation, safed musli can make a real difference.

## **REFERENCES IN AYURVEDIC TEXTS :**

### **SARNGADHAR SAMHITA**

#### **Prathama Khanda – 4/15**

“YASMACHHUKRASYAVRIDHHIHSYAT SHUKRALAM CHATADUCHYATE “YATHA.....MUSALEE....”

That which effectuates an increase in shukra is known as Shukrala “MUSALEE CHURNAM” in Madhyam Khanda” (6/158-159), which is used for aphrodisiac purpose.’

## **SODHALA NIGHANTU**

### **Nama Samgrahe : 88-90**

“ IKSHURO DARAKRISHNASCHA MUSHALYESHAM TU CHURNAKAM “  
“PAYASAPEEYAMANAM TU VAJEEKARAMUTTAMAM .....

The powder of ikshu (Sachharum officinarum), dadakrishna and mushalee (Chlorophytum borivillianum) when taken with milk are excellent aphrodisiacs.

### **Karaveeradi Vargah : 4/375**

“MUSHALEE RASAPAKABHYAM SVADUSHEETAGNI VARDHINEE  
“VATAPITTAHARA VRISHYASTHARIYAMARDAVADAYINE..... “

Musali posses svadu/Madhura Rasa (taste), Madhura vipaka (final transformation), Sheeta veerya, enhances digestive power, pacifies Vata & Pitta and is vrishya (aphrodisiac), ushers in stability and flexibility.

## **MADHAHA DRAVYAGUNA**

### **Vividhaushadhi Vargah : 1/ 87**

“MUSHALEE MADHURA VRISHYA VEERYOSHNA BRIMAHNEE GURUH”  
“TIKTA RASAYANEE HANTI GUDAJANYANILAMTATHA .....

Musali possesses Madhura rasa & vipaka, Ushna Veerya, and guru guna (difficult to digest), and is vrishya (aphrodisiac), brimhana (increases copulence), Rasayana (rejuvenator) and alleviates ano-rectal diseases and vata dosha.

### **Shakah Vargah : 22/ 79**

“KASHAYAH PITTASHAMANAH VIPAKE MADHURA HIMAH .....

“MUSHALEE BRIMAHNEE VRISHYA VEERYOSHNAARSHO ANILAPAHA “

Mushalee is madhura and mild kashaya in taste, possesses madhura vipaka, sheeta veerya. It is vrishya (aphrodisiac), brimhana (increases body bulk) and alleviates ano-rectal diseases and vata dosha.

## **MADANAPALA NIGHANTU**

### **Shaka Vargha : 85**

“MUSAHLEE TALAPATREE SYATKHALINEE TALAMOOLIKA “  
“MUSHALEE BRIMHANEER BALLYA VEERYOSHANARSHO ANILAPAHA”

Musalee, Talapatree, Khalinee and talamoolika are synonymous. Musalee is of ushra veerya, brimhvana, balya (which increases bala), and of alleviates piles and vata.

## **BHAVAPRAKASHA**

### **Nighantu Part – Guduchyadi Vargah : 183**

“TALAMULEE TU VIDVADBHI MUSHALI PARIKEERTITA “  
“MUSHALEE MADHURA VRISHYA VEERYOSHNA BRIMHANEER GURU”  
“TIKTA RASAYANEE HANTI GUDAJANYANILAM TATHA “

Erudite people term talamulee as Mushalee (c.b). Mushalee possesses Madhura Rasa, guru, guna, ushna veerya, and is vrishya, brimhaneer and rasayana. It alleviates ano-rectal diseases and pacifies vata dosha.

## **RAJA NIGHANTU**

### **Moolakadi Vargah : 116-117**

“ MUSALEE MADHURA SHEETA VRISHYA PUSHTIBALAPRADA  
PICHHILA KAPHADA PITTA DAHA SHRAMAHARA PARAC  
MUSALEE SYADVIDHA PROKTA SHVETA CHAPARASANGYAKA

Musalee is of madhura rash, sheeta veerya, gives nutrition (Pushtiprada), enhances bala pichhila (Unctuous), produces kapha (responsible for immunity), alleviates pitta dosha, reduces burning sensation, and is the best fatigue reducing agent. This musalee is of two types viz. shveta (white) and Krishna (black).

## RAJABALLABHA NIGHANTU

### Nanaushadhi Vargah : 6/36

“TALAMOOLEE HITAVATE GRAHANEE CHA RASAYANEE”

Talamoolee or Chlorophytum borivilianum is helpful in vatic disorders, grahanee (I.B.S or Tropical sprue) and is a rejuvenator.

### PRIYA NIGHANTU

### Sharadi Vargah : 36

“MUSALEE KANDAPRADHANAYO SEVITVANARO BALEE BHAVATI”

“VRISHYA SATIKTAMADHURARASAYANEE VATASHAMANEE CHA”

Musalee (c.b) is a tuberous plant, on consumption of which a person becomes stronger . It is of madhura and slightly tikta rasa and is vrishya, rasayan and vata- pacifies.

### SIDDHABHESAJA MANIMALA

### 2nd Guchha (Chapter), Paushtika Vargah/100

“MUDHURABALADAYUVABHAVAKAREE GUDAJANILAKOPAHAREE “MUSHALEE. UPABHUJYATA EVAHIYENA SADA BHUVI TENA PARAM” “SADRISHO MUSHALI”

Mushalee is madhura, provides bala, ushers in youth: it alleviates ano-rectal diseases and vata dosha. By taking this one can become strong like Balaram.

All the references cited above reveals that roots of Safed Musli

possess madhura rasa (sweet in taste), madhura vipaka (sweet in final transformation after digestion and metabolism), guru (heavy), pichhila (viscid) and sheetqa veerya ( cool in potency). On account of these properties it pacifies Vata and Pitta and produces Kapha (Bala).

It exerts Balya (Vitality, Immunity and strength), Rasayana (anti-ageing and cognitive enhancer) and Vrishya (aphrodisiac) effects. It alleviates ano-rectal diseases like piles and Vatic disorders.

## BOTANICAL OVERVIEW

### TAXONOMIC CLASSIFICATION :

#### A..Bentham & Hooker

Phyllum Class / Sub-phyllum Series Family Genus Species

Phenarograms Monocotyledone Coronarieae Liliaceae Chlorophytumborivilianum

### BOTANICAL DESCRIPTION - MACROSCOPIC

<b>Latin name</b>	- Chlorophytum borivilianum (Sant. & F.)
<b>Family</b>	- Liliaceae
<b>Habit</b>	- A small perennial herb with a full crown of radical leaves appearing over the ground with the advent of summer rain.
<b>Root</b>	- Root tubers are fleshy, fascicled, directly originates from the stem disc devoid of any fibrous structure, cylindrical, 5-20 in number, outer skin is straw coloured and white on peeling ; the tubers are 10-25 cms x 1-2 cms in dimension.
<b>Leaves</b>	- Radical, 6-13 in number, 13-23 cms x 1.0 -1.75cm in size, spirally imbricate at the base, sessile, linear or ovate, acute apex, slightly narrowed at the base. The leaves spread horizontally, both surfaces are smooth; margins are wavy ; parallel venation.
<b>Inflorescence</b>	- Scape solitary, terete, 15-30 cms long. Terminal, unbranched; it bears flowers on above upper 3/4th of its length.
<b>Flowers</b>	- Small, white, bracteate, pedicillate, zygomorphic, usually arranged in alternate clusters, each cluster comprising of 3 flowers; the flower clusters are dense on the upper part of the scape; bracts are linear, papery and purplish, 1.0-10.5 cms long; pedicle whitish, jointed and kneed at the joint, 6-10 mm long.

- Perianth** - Tepals white, 6 in number arranged in two whorls of 3 each, linear, membranous, acute, 3-5 nerved, imbricate aestivation.
- Androecium** - Stamens 6, arranged in two whorls situated opposite to tepals, united to the perianths, as long as perianth, dithecous, filaments are glabrous, anthers are yellow, linear, dehisces by longitudinal slits.
- Gynoecium** - Tricarpellary, syncarpous; ovary superior, adnate at the base of the perianth, trilobular with axile placentation, angles obtuse, green, glabrous ; ovules numerous in each locule, style single, slightly longer than the stamens, swollen at the apex.
- Fruit** - Aloculicidal capsule, green to yellow coloured, triquetrous to 3-sulcate, almost equal in length and breadth.
- Seeds** - Endospermic, onion-like, black coloured, angular; each capsule bearing 14-16 seeds.  
Chromosomes -  $2n=16$  (Kumar & Subramaniam, 1986)  
Floral Formula -  $+ P (3+3), A (3+3) G(3)$

### MICROSCOPIC DESCRIPTION

#### Transverse Section of Root :

A transverse section of root shows a circular outline without any appendages. The outermost layer in yellowish pieces (which are very few in number) is a uniseriate epidermis which consists of cells with very thickened and swollen walls due to silicious deposition. The cells though appearing mostly rectangular with few square in shape do not have clear demarcations. In some cells very narrow lumen is noticed. This structure is altogether absent in majority of the pieces which are decorticated. This is followed by a very large zone of cortex. The outermost layer of the cortex (which is outermost boundary in most pieces) just below the epidermis consists of cells which are mostly rectangular, appearing much longer than wide. The rest of the cortical cells are rounded to polygonal, parenchymatous and have little or no intercellular spaces (probably due to swelling). The innermost layer of the cortex is a single layer endodermis.

The stellar structure shows that the endodermis is followed by a uniseriate pericycle layer. The vascular tissue is not very elaborate. The xylem is exarch and consists of jointed vessels, 3-5 in number in each group. There are about 30-35 groups of xylem. However, xylem fibres are quite abundant, surrounding the vessels and jointed to form a more or less continuous irregular ring. However, the amount of xylem fibres is not uniform at all places. The phloem is grouped in between the arches of the xylem tissue along with parenchyma. The central region is occupied by a fairly large pith region where also the cells are closely packed as in cortical region. These are mostly polygonal in shape.

#### Flowering and seed formation:

When well developed plants with fleshy roots are planted both in nature and in field, these produced inflorescence with the emergence of its sprouting within 4-6 days of receipt of first shower i.e. in July - August. However, when the plant is grown in the field from individual fleshy roots, then only those fleshy roots will produce inflorescence which are well developed but in this case number of flowers are less. This peculiar flowering pattern may be attributed to the presence of relatively more stored food material in the former.

Generally, one plant produce one inflorescence but sometimes 3-4 inflorescences are seen if the mother plant is older and the stem disc is well developed.

This is an insect pollinated plant. All capsules do not mature at the same time and dehiscence takes place as soon as it turns brown consequently the seed collection is very difficult.

### DISTRIBUTION

**Wild :** *Chlorophytum borivilianum* Sant. & F. is reported in Bastar Forests (Madhya Pradesh), Dang forest (Gujarat), Mount Abu, Mahi, Aravalli hills (Rajasthan) of India. It is also reported to occur in some parts of Pakistan.

Cultivated sources: It is now widely cultivated in different parts of India like Andhra Pradesh, Rajasthan,

Gujarat, Maharashtra on commercial basis.

Current availability status: The CAMP workshop at IIFM, June 1999 reports the natural habitat of this plant as endangered.

#### **MEDICINAL PROPERTIES & ACTIONS:**

- Aphrodisiac – Reported to increase the semen volume and total sperm count. It also enhances the sexual desire and makes the act more pleasurable.
- Anti-ageing – It is said to be endowed with Rasayana properties i.e. it delays the ageing process by rejuvenating the entire system.
- Enhances working capacity – Safed Musli increases the capacity to work owing to its Balya properties.
- It is also useful in Rheumatoid arthritis, Diabetes mellitus, Post menopausal syndrome.

#### **MODE OF ACTION:**

#### **CLASSICAL BASIS**

#### **CONTEMPORARY BASIS**

#### **DOSING INFORMATION:**

Dosing of herbal preparation is dependent upon on a variety factors, such as body constitution of the recipient, seriousness of the ailment, place of use, collecting or growing and harvesting conditions, plant parts used and extraction methods and dosage form standardization to single constituent markers has proven unreliable. Considering all these dosage ranges must be employed as guidelines as per the following :

#### **FOR THE PURPOSE OF HEALTH PROMOTION:**

- 1. Adult** : 5 gms of powdered peeled dry root tubers per day  
500 mg of the standardized extract, containing saponin not less than 3%, taken once daily.
- 2. Children** : Children below 6 years should not use this herb.  
6 – 12 years – 3gms root powder per day  
250 mg of standardized extract.

#### **Male Sexual Inadequancies**

10 gm powdered dry root per day in divided doses.

1 gm solvent extract per day in divided doses

**Route of Administration:** Oral

#### **TYPES OF PRESENTATION:**

Powder

Extract

Capsules

Tablets

#### **USES:**

Scientific evidence on Safed Musli has been shown to be more effective than placebo. Human studies have demonstrated its significant efficacy in the treatment of Oligospermia. It is also been shown of having significant effect in increasing semen volume and total sperm count. Clinical trails also shown it to enhance working capacity by stabilizing fatigue indicating parameters.

#### **TRADITIONAL USES**

Safed Musli in traditionally used for lack of libido male impotency, oligospermia. It is also widely used as a general health promotive tonic and for delaying the ageing process. Varying its common use for health

promotion, it is also used for increasing lactation, treating various gynecological disorders, arthritic conditions and to control diabetes metitus.

**CONTRAINDICATIONS:**

There is no as such contraindication of this herb.

**ADVERSE EFFECTS:**

It has no adverse effect it taken in a proper dose. Hyper dosing may lead to gastrointestinal upset.

**VEHICLE OF ADMINISTRATION:**

Ayurveda suggests Safed Musli be taken along with warm milk for better results.

**DRUG / FOOD INTERACTIONS:**

No scientific study has been done to determine its interaction with drug / food. Clinical observation suggests, it reduces appetite and interferes with digestion process. Therefore, it is advised to be taken an hour before food.

**PRODUCT ANALYSIS:**

Chemical analysis of Safed Musli root powder reveals that it contains

**1.Saponins – 12-17 %**

i. Stigmasterol – 1.9-3.5 %

ii. Sugars

a. Arabinoseb. Galactosec. Glucosed. Rhamnosee. Xylose – 0.79%– 3.80%– 0.73%– 0.78%– 0.76%

**2. Carbohydrates – 35-42%**

i. Reducing Sugarii.Non-reducing Sugar – 20-25% – 15-17%

**3. Protein – 8-8.5%**

**4. 4-hydroxy-8,11-oxidoheneicosanol**

**5. Pentacosyl decosanate**

**6. Nonacosone**

**7. Tetra cosanicccic acid**

**8. Tri-acontanoic acid**

**9. Trigogenin**

**10. Nigogitogemin**

**11. Tokorogenin**

**12. Benzyl glucoside**

**Storage And Stability**

No scientific study has been done to assess in the stability of powdered Safed Musli. Basing upon Ayurvedic guidelines Safed Musli powder has self-life of 6 months after opening of the container.



Plot No.16, Road No. 13, Banjara Hills,  
Hyderabad - 500 034. A.P. India.  
Tel: +91 40 5550 7799, 5559 5799  
Email: info@nandan.biz www.nandan.biz