

A Research Article Lentil Unexplored –Kulthi Dal (*Macrotyloma Uniflorum*)

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ABSTRACT:

We are literally what we eat. The stuff we eat directly affects how long we live. The list of food ingredients is endless and selecting the right foods for our diets has emerged as the most crucial issue to be addressed nevertheless, if we are aware of the ingredient's therapeutic application, it makes our lives easier. Our eating habits have a direct impact on how long we live. This study is based on information about "Horse gram" and its nutritional benefits. We have a strong bond with organic food, and the kind of organic food that is best for us entirely depends on the local conditions and environment. Horse gram is not extra ordinary nor unusual. The benefits of horse gram's medicinal properties are vast. There is only one substance that ranked at the top, and that is horse gram, to remove toxins from the body with absolutely little negative effects while also consuming big amounts. While the horse gram does not play a significant role in any cuisine, it has the potential to improve nutrition once it is fully incorporated into all regional cuisines. There are a few outstanding kulthi recipes that our people still hold dear to their hearts since they are well aware of the incredible medical benefits of kulthi.

Keywords: Pharmacological activity, Photochemical Activity, Phytoconstituents, Nutraceutical & Nutraceutical composition etc.

THE LITERATURE-

To be able to comprehend the health advantages of horse gram and to develop a variety of recipes using horse gram that can improve human body's physiological function, Kidney stones are one of the most prevalent diseases in the world and are causing enormous amounts of agony. Horse gram has many names depending on the regional language of the state, but its effects are the same.

When there is sufficient understanding about the ingredients, it will be possible to promote a healthy lifestyle. (Alelign and petros) Kidney stones, which eventually cause kidney failure, affect 12% of the world's population. It might progress to renal failure. Since it helps to open the body's spores, which aid in flushing out toxins, horse gram paste soothes localised swelling and helps prevent kidney stones, which have plagued mankind for many ages

(Prashant, 2016). When the body experiences swelling, pain, or any other type of irritation or harm, there is inflammation.

Using the chemical composition from horse gram, chronic inflammatory diseases can be treated.(giresha,Narayanappa,Joshi,vishwanathan,krishnappa2015).

INTRODUCTION:

Horse gram is a type of bean that is less popular with people. Other names for this dal include "Kulthi," "Bengali -Kulthikalai," "Tamil- Kollu," "Ulavalu," "Kannada Hurule," "Oriya Kolatha," and "Gujrati Kadthi Ni Dal." It is frequently used to make daal, which is typically served with cooked rice or even chapati. Typically, the southeastern region of India is where these plants were first discovered. They can also be found in Australia, Africa, and Malaysia, among other places. Horse gram is a reddish grain that resembles urad daal but is higher in vitamin A. It has some hilarious health benefits and is well known in Ayurvedic cuisine. It has 20% or so protein. It has a lesser taste than other beans but a very high iron content, making it very well known among farmers.

This is well-liked and known as (Gahat) in the kumaon villages of Utrakhand. Because of their eating habits and climate, villages make this option. Especially in the Kumaoni region, it has also been incorporated into Utrakhand cuisine. It also flourishes in states like Himanchal, Tamil Nadu, and Madhya Pradesh. Under dry agricultural land, horse gram is farmed. Horse gram must be soaked before cooking, just like chickpeas and kidney beans. The benefit of soaking is that it prevents fuel waste and results in well cooked daals in a short amount of time. Another historical advantage of kulthi daal is that when it was previously cooked with a lot of water, the extracted water from the daal was used to break large stones into smaller pieces because the kulthi daal's water penetrates into the stone and makes it loose. Consequently, it was simple to split huge stones into smaller ones. After cooking, the kulthi daal would have a liquid consistency and no texture similar to (arhar, masoor, moong, urad). Over boiling the kulthi daal won't cause it to melt, but it will have a softer texture.

OBSERVATION:

Horse grams are well renowned for their amazing medical applications since they contain a potent blend of several compounds that the human body readily accepts. It has been found that horse gram water and its straightforward daal also aid the body's defences against serious illnesses and some chronic conditions. It might be a beneficial step in the direction of a healthy lifestyle and a substitute for regularly utilising lentils. People who ate Kulthi daal experienced relief from kidney stones and inflammation.

MEDICINAL USE:

1. Horse gram seeds have anti-hyperglycemic effects that regulate blood glucose level.
2. It has plenty of soluble fiber and reduces the absorption of carbohydrates.
3. M. uniform seeds were employed to create painkillers that effectively counteracted indirect hemolytic activity.
4. Bacillus subtilis is a gram-positive, catalase-positive bacterium that is present in soil and the gastrointestinal tracts of ruminants and humans. Horse gram seed possesses anti-microbial properties against this bacterium. Staphylococcus aureus (Staphylococcus aureus is a Gram-positive, round-shaped bacterium that is a member of the Formicetes and is usually found in the nose, respiratory tract, and on the skin) is a common component of the body's normal flora.
5. Diuretic activity - By ingesting horse gram, kidney stones are diluted in urine and expelled by urination. It also increases urine flow, which puts pressure on the deposited stones and causes them to fall out and be expelled through urination Horse gram water that has been soaked can assist eliminate kidney or uretic stones.
6. In Andhra Pradesh, horse gram water is used to treat jaundice.
7. Cough and cold relief are other uses for horse gram water.
8. Horse gram paste can be used to the face to treat boils and skin rashes.
9. Increasing your intake of horse gram can assist you lose weight. Additionally, sour butter milk and powdered horse gram can be combined and applied to areas where fat is deposited to assist reduce fat.
10. Because it helps to raise the blood count, it is also highly helpful during the early stages of pregnancy.
11. People who live in cold climates prefer it since it also keeps the body warm during the winter.

Kulthi Daal preparations to remove kidney stones



Source - Joyson

Kidney stones range in size from 1.5 mm to 2.5 mm, and there are effective ways to remove them from the body.

1. The creation of Kulthi water

It is a drawn-out process, but it is entirely normal and without any negative effects.

It will help to break kidney stones if you soak 25 grams of horse gram in 250 ml of water over night. The next morning, drain the water and drink it on an empty stomach. Then, add the same amount of water to the previously-soaked horse gram, and drink it at lunch. These soaked horse gram can later be used to make thin daal, which can be eaten with rice or roti. (joyson2011).

2. Making soup called kulthi.



Source – Isha sadhguru

Making this soup requires a lengthy process, and it is cooked slowly. 200 grams of kulthi daal should be boiled in 2 litres of water. When it is reduced to half, it takes around 4 to 5 hours to cook. You can have it for lunch if you just eat this soup. It will begin working in a week or two.

Horse gram have the following nutritional value per 100 gram

NUTRIENTS	AMOUNT
Energy	321 Ecals
Protein	22 gram
Carbohydrates	57 gram
calcium	287 mg
phosphorus	311 gram
iron	7 mg
fiber	5gram

Other common recipes are

Horse gram rasam is one of the other popular dishes.

Horse gram dosa

Kollu chutney

Horse gram dishes include soup, gravy, and korma.

RESEARCH DISCUSSION:

Horse gram, which is less well-known yet has astonishing effects on the body, is the subject of the investigation. Due to its availability on the market and the apparent eating habits of the present generation, the use of the kulthi is now less preferred by the general public. We must not ignore the medicinal properties of horse gram and work to make the public aware of its health advantages. Understanding the significance of horse gram is essential. Horse gram is one of the best components that can be found in the home to treat health problems, which have become more prevalent. Just a little initiative, like "what to eat," is required.

CONCLUSION:

The horse gram is well-liked by those who understand its significance. It has a number of other benefits for human health in addition to being one of the key substances used to treat kidney stones and being very simple to digest. It is excellent for all age groups. Additionally, it is one of the foods with very no adverse effects. There are natural chemicals in our possession that can heal us, despite our busy lifestyles where we prefer all medications and

spend our money on therapies. The appropriate quotation in this situation is "Eat healthy, live healthy."

ANALYSIS AND INTERPRETATION:

Consume the proper foods in accordance with your body's needs and incorporate immune-boosting foods in your diet. Horse gram certainly has wonderful effects on the body. The inclusion of Kulthi daal in our diet can help us control a variety of ailments. There are numerous techniques to treat illnesses, but only natural methods can also heal the body. The kulthi daal is a comprehensive meal component that gives the body enough energy because it is also filled with protein and carbohydrates. There are many different recipes that can be eaten depending on the person's preferences.

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REFERENCE:

1. Alelign tilahun, Kidney Stone Disease: An Update on Current Concepts, 2018feb4. doi:10.1155/2018/3068365.
2. Horse gram uses, recipes, dose, side effects, Prashant.B.K. in 29/2/2016.
3. AQUEOUS EXTRACT OF MACROTYLOMA UNIFLORUM (SEED) INHIBITS HUMAN SECRETORY PHOSPHOLIPASE A2 (sPLA2) AS AN ANTI-INFLAMMATORY ACTIVITY, A.S Giresha, M rayanappa, Joihi vikram, vishwanathan B S, krishnappa dharmappa dharmappa, in International Journal of Pharmacy and Pharmaceutical Sciences 7(1):217–222, November 2015.
4. Horse gram-an underutilized nutraceutical pulse crop :a review, Prasad Saroj and Singh Manoj, J Food Sci Technol May 2015, 52(5): 2489–2499 doi:10.1007/s13197-014-1312-z.
5. Horse Gram: Recipes and 12 Health Benefits Article by Isha Sadhguru from February 2015.
6. Break any kidney stones using Horse gram –by joy son On Sunday, July 31, 2011.
7. <https://onHerbpathy.com/UseandBenefits-of-Horsegram-Cid590>.
8. <https://www.onlyfoods.net/horse-gram.html>.