RESEARCH PROJECTS ACCOMPLIOSHED BY

THE STUDENTS AND STAFF OF SPACES DEGREE

COLLEGE WITH THE GENEROUS FUNDING OF

THE MANAGEMENT

RESEARCH PROJECTS ON RURAL APPLICATIONS IN SPACES DEGREE COLLEGE CAMPUS

Majority of the students of SPACES College are with Rural Background. Families are involved in the cultivation of lands and depend on livestock for livelihood. In the class room discussions, their questions are related to the improvements related to rural sector for helping their parents.

For example:

1. Zoology & Botany students rise questions on soil testing, livestock maintenance, Bio-gas generation, Dairy setup, Dairy products
2. Graduate students of Physics and Chemistry posed questions on creating electricity through Bio Gas
3. Other students had enthusiastically questioned on the products generation for commercial viability.

Thus, students and Faculty members came up with practical research projects that have resulted in establishing product centers in the College campus, which have in turn encouraged for promotion of Entrepreneurs in the neighboring villages, Training centers for training the rural population on quality aspects of Organic Farming, Animal Health care, Dairy concepts, Milk Products, marketability and above all an eco-system for continuous innovations in Rural Development.

The following Research Projects have been successfully accomplished by the students and faculty members of the SPACES Degree college with the generous funding of the College Management.:

S.no	Name of the project	Year of Completion	Basic Cost
1	Animal Health Care Project	1998	40,000
2	Silage Project	2011	25,000
3	Dairy Farm project	1999	25,000
4	Milk products project	2008	90,000
5	Bio-Gas Project	2000	10,00,000
6	Electricity Generation through Bio-Gas Project	2001	1,00,000
7	Organic Fertilizer- Slurry &wormy Compost Project	2002	60,000
8	Project on creating ORGANIC farms	2002	50,000
9	Improvements in Organic Fertilizer Quality & Production	2015	90,000
10	Health care project	2018	1,80,000

Research Projects in Brief

1. Animal Health Care Project
2. Silage Project &
3. Dairy Farm Projects

1.Animal Health Care Project, 2. Silage Project & 3.Dairy Farm Project

Pre-Pregnant activities like calf to Adulthood, Pregnant and Mother animals are treated and cared separately. Suitable activities had been identified with the expertise drawn from Veterinarians and established a center of Animal Health care. Challenges on maintaining the Livestock with good food for producing more milk, have been faced and succeeded on regular basis.

Breeding, Feeding, Milking, Health Care are the main functions in dairy farming. For economical milk production, the feeding of dairy animals should be primarily fodder based. With meticulous planning and effective implementation, Dairy farming experience here helped to be economically better than the Industrial sector.

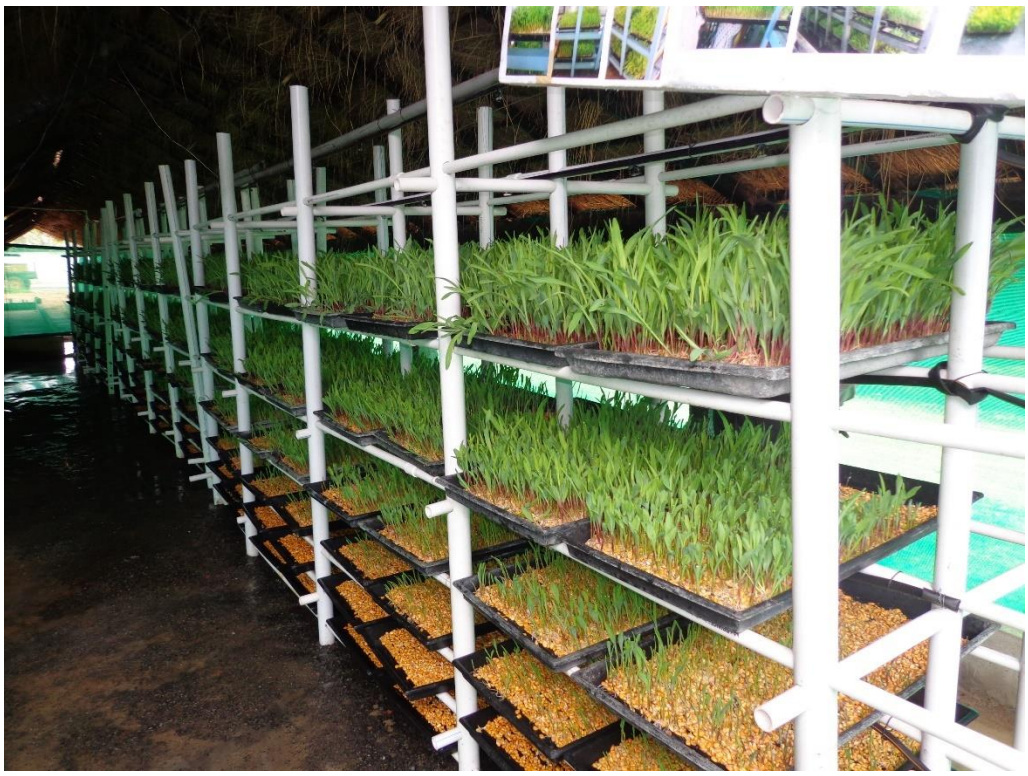
DAIRY FARM IN THE CAMPUS

DAIRY FARM IN THE CAMPUS

ANIMAL HEALTH CARE CENTRE

COWS WELLNESS HOUSE

CORN FODDER GROWN FOR CATTLE



FODDER GROWN FOR CATTLE

SILAGE PROJECT- COMPRESSOR AND STORED BAG

4. MILK PRODUCTS PROJECT

Having met the demand of milk and basic milk products requirement in the campus for students and staff members, we are able to develop the milk products such as cheese, curd, lassi, buttermilk, butter, Ghee and dairy sweets by establishing an outlet counter with the help of professional business expertise drawn form known sources. This is one of the highly successful projects not only for getting income for meeting the complete expenses, but on meeting the desire of supplying high quality milk products to the society at large.

MILK PRODUCTS PRODUCED FROM OWN DAIRY

5 BIO-GAS PROJECT

As an Eco-friendly fuel for saving us from the energy crises, we could select Biogas as one such source which is renewable and can reduce the dependence on fossil fuels to a considerable extent. We use Biogas technology to obtain Biogas from dung to produce cooking gas, Electrical power and Organic Fertilizer. Biogas could solve mainly two problems that we face of rural areas, namely

"1. Shortage of Energy &

2. High cost of fertilizer".

We could demonstrate the Universal truth that Biogas technology is progressive, sustainable and contributes much to social advancement.

The important physical and chemical conditions that affect the overall biogas reaction are "Temperature, pH, C.N Ratio, Nutrient availability, toxicity by certain chemicals, Oxidation reduction rate of the substance, moisture content and retention time, etc.

Assuming 360 days of Biogas plant operation, 20kg dung/animal/day 0.05 cum of biogas/kg wet dung, 1.2 KW power/1 cum of biogas, we can produce 48.98 crore Kg's wet dung / dung / day, 2.449 crore cum Biogas / day and 2.9388 crore KW power / day.

The total production of electrical power in a year comes to 1057.968 crore KW, amounting to approx. Rs. 4231.87 crore when assumed at Rs 4/- per K.W. We can produce organic fertilizer …. M.T., the value of which is to be added to the above figure.

Biogas is produced through a biochemical process in which some bacteria convert the biological wastes into useful Biogas comprising Methane. Such Methane gas is renewable through continuous feeding of biological wastes, which are available in plenty in rural areas in our country.

The process of Biogas production is and aerobic in nature and takes place in two stages

(1) Acid formation stage

(2) Methane formation stage.

To separate the two stages, the fermentation tank is suggested.

Dung and urine from the dairy farm are collected and dumped into the slurry mixing tank. Water equivalent to 2/3 weight of dung and cattle urine 1/3 weight of the dung should be added. C/N Ratio is to be calculated and the inputs are to be adjusted to have a C/N Ratio between 25 to 30. Mix the material well in the mixing tank, with the help of mechanical mixer, removes all the unwanted material from the mixing tank. While mixing water and urine in the mixing tank, we must take enough precautions to separate the heavy inorganic solid particles from the slurry. Then we should pass the prepared slurry to the fermentation tank where the lighter non-fermented material is allowed to sink gradually.

The partially fermented slurry from the fermentation tank is pumped to the digester with the help of an inlet pipe. The digester holds the slurry within it for a period of digestion (30 to 40 days) for which it is designed. During the retention period Biogas is produced through biochemical process in which some bacteria convert the biological wastes into useful Biogas comprising Methane. The Biogas so produced will be collected in the gasholder. Gas connection is taken from the top of the gas holder.

The produced Biogas is used as cooking gas and as fuel for I.C Engines for generating electrical power. Its usage as an alternative fuel for Kerosene, Diesel and Petrol provides an attractive and viable proposition for a common farmer.

BIO-GAS USED FOR COOKING GAS

This success story would be useful for many to encourage that Biogas technology is rightly suitable for A.P where the mean temperatures are very high(Biogas production will be more at high temperature). Andhra Pradesh has a cattle population of about 2.449 crores.

6.ELECTRICAL POWER GENERATION THROUGH BIOGAS POWER PLANT

The Biogas technology has saved us from Energy crises to considerable extent and it helped to improve our Economy by integrating it for rural development.

POWER HOUSE AND GENERATION UNIT

Biogas based power units are reliable decentralized, sustainable poser generating units. It has the lowest financial input per KW of power generation with cost effective on the economy of our rural area. The Biogas collected from the gas holder is purified with moisture traps and scrubber in the power house. The purified gas is used to run the I.C Engine which will convert Mechanical Energy to power and the electricity so produced can be transmitted to required points with the help of the main distribution panel, sub-distribution panel and underground cables. This is where the bio gas generated is processed and sent for the cooking purposes and electricity purposes.

7.ORGANIC FERTILIZER- SLURRY & VERMI COMPOST PROJECT

On several experiments related to the collection of Earth worms, care of earth worms, maintenance of them, Animal dung was mainly used apart from the other waste as fodder for earth worms. A good accommodation has been arranged for the entire process of creating wormy Compost. This wormy compost is also commercialized so that it meets the maintenance of the Plant on continuous basis. Extension education programs are arranged for rural youth for developing the skills in creating and maintaining the Wormy Compost projects in the back yards of the village habitats. The training includes the knowledge development on use of earth worms for improving the soil fertility.

The by-product of Biogas production is digested slurry, rich in NPK, which has the capacity to improve soil fertility and reduce import of chemical fertilizers (which is currently a great burden on the large amount of Foreign Exchange in the country).

When the digester is changed with fresh material, an equal quantity of digested slurry will come out through the slurry outlet pipe and the slurry outlet chamber. The digested slurry is collected in the digested slurry collection tank with the help of the outlet slurry channel. Fresh digested slurry in liquid form contains more Nitrogen. To use this advantage in farm, a part of digested slurry is pumped to green fodder fields, banana gardens, Vegetable gardens, green houses, Mango groves and coconut plans etc., through separate pipe lines and also by using slurry carrying tanks attached to tractors. The remaining part of the digested slurry is pumped into drying pits, where solids and liquids are separated. The solids so obtained are used as raw material for producing vermin compost and other organic fertilizers. The liquids obtained are used for the use of cotton cake, groundnut cake etc. in cattle feeding.

VERMI COMPOST BEDS

The digested slurry is a good source for micronutrients like, Zinc. Iron, Manganese and Copper. The plant nutrient content in digested slurry is given in the following table.

Plant Nutrient Content in Digested slurry

Plant Nutrient	Digested Slurry
Nitrogen N	1.5% to 2.00%
Phosphorus P(P_2O_5)	1.00%
Potash K (K_2O)	1.00%

SLURRY TANK

AZOLLA

The use of digested slurry (in liquid form) as manure improves soil fertility and increases crop yield by 10-20%. The slurry that comes out of the digester constitutes of good quality manure, free from weed seeds, foul smell and pathogens. It is rich in NPK and reduces the dependence on Chemical Fertilizers (which currently drains large amount of foreign exchange) The liquid separated from the digested slurry contains nutrients and trace minerals. It is a good promoter of algae. A high protein (35% to 40% Protein) rich Azolla can be harvested using this liquid. Azolla can be used in amounts up to 10% in animal feed to replace costly protein rich de-oiled cakes.

VERMI COMPOST UNIT
RESEARCH AND EXPERIMENTATION

In such created ecosystem students and the faculty are encouraged to conduct research and experiment. Life sciences students regularly have access to the Vermi compost unit and other Bio fertilizer units, students formulate basic requirements for Vermi compost unit and observe the outcomes in the farm of fertile Vermi compost.

SPACES STUDENTS AT THE BIO FERTILIZER UNIT

8. PROJECT ON CREATING ORGANIC FARMS

- In our organic farm we are producing vegetables, leafy vegetables, bananas,Coconuts, Mangoes etc., by using Bio Digested slurry for our needs.
- We are producing green fodder in 25 Acre by using Bio Digested slurry to feed thedairy animals

SLURRY AS ORGANIC FERTILIZERS TO THE FIELDS

COCONUT GROVES

MANGO GROVES

OUR OWN ORGANIC FARM

9. IMPROVING ORGANIC FERTILIZER QUALITY &PRODUCTION

Now we are conducting trials for solidifying the digested slurry with the help of Neem Cake, Castor Cake, Tobacco Cake, Bone Meal, Coir Pit, Bagasse Ash, Poultry manure, Filter Cake, Sheep/Goat Manure, Hoof and Horn Meal, etc., for getting good quality Organic Fertilizer suitable to use in Mango Groves, Coconut Groves, Oil Palm Groves and Green Fodder Crops. hoping for success at the earliest.

INTERGRATED DAIRY FARMING

With our Successful accomplishments in Dairy development projects, we could observe that farmers in the neighboring villages are moving towards dairy farming.

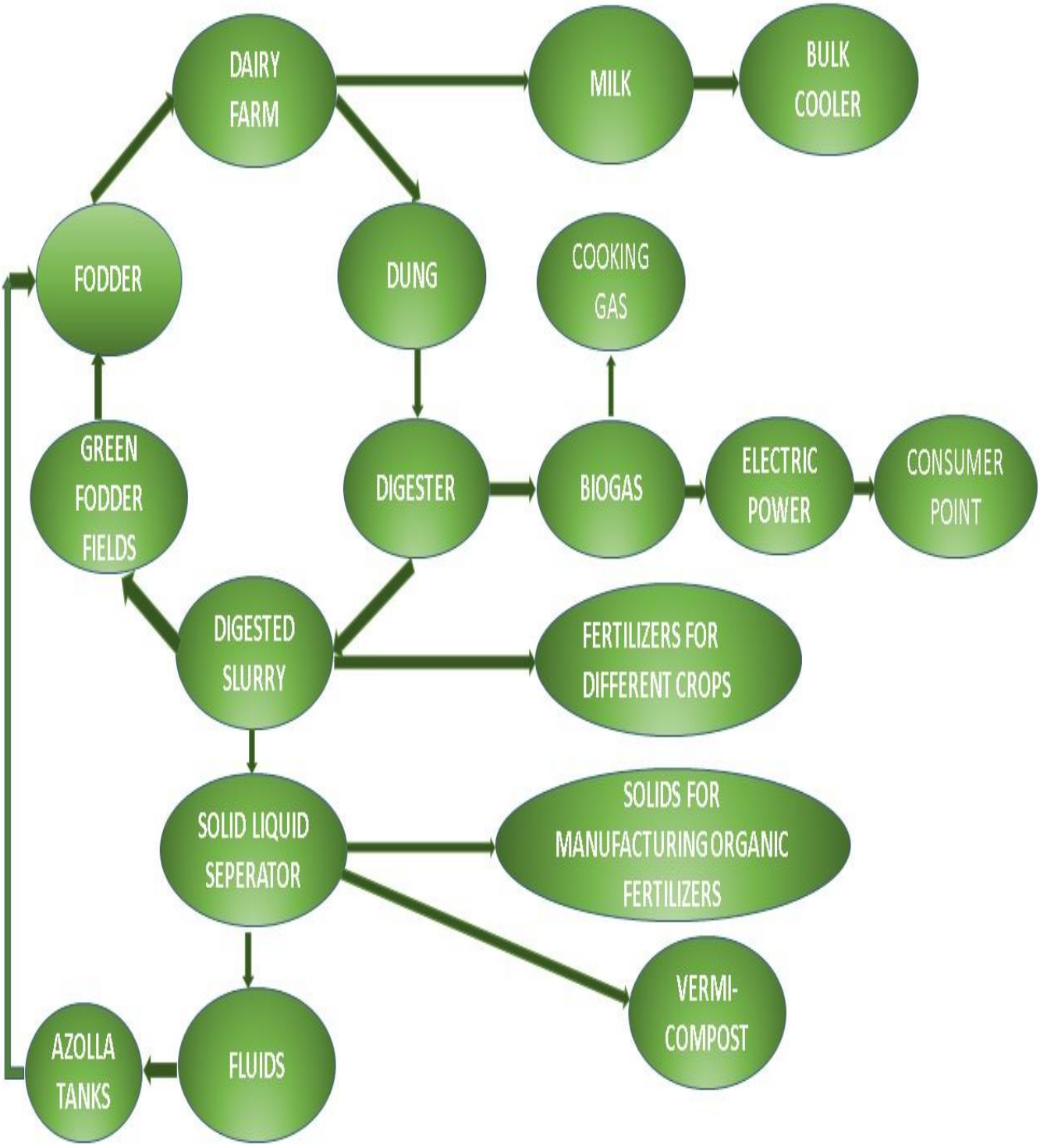
If the innovations of our able scientists are integrated properly with the toil of our dairy farmers, the milk production can be increased to meet the ever-increasing milk and milk product demands of our country. To attain the production targets, dairy farming must be treated as dynamic agribusiness. It should not still remain as an age-old backyard vocation.

The future of our dairy industry depends on quality and quality alone to achieve and meet world class standards and to reduce cost of production for finding a rightful place in the global market.

Integrated Dairy farming can help exploit the full potential of livestock in India. With practical experience, we are able to identify that the important wings of integrated dairy farm are

(1) Dairy Farm
(2) Bio-gas Plant
(3) Power plant
(4) Organic Fertilizer unit
(5) Organic farming

DAIRY FARM FLOWCHART



ADVANTAGE & NEED OF INTEGRATED DAIRY FARMING

- The cooking gas, electrical power and organic fertilizers produced through processing dung and urine have high commercial value and hence improves the viability of dairy farming.
- In integrated Dairy Farming, a farmer can produce good quality milk at low Farm Gate Price and hence can be more competitive in Global Market.
- Immediate cooling of the milk ensures control of Microbial load and there by retains flavor and quality of milk.
- Usage of drugs can be reduced as we can maintain better sanitary and hygienic conditions and thereby produce milk free from drug residues.
- Quality fodder and feed can be ensured to the cattle to achieve quality milk free from pesticide residues, heavy metals etc.
- The new trend in the world Hydro-Carbon scenario shows the need for more dependence on Natural gas and un-conventional gas (shale gas) where both are Methane gases.
- The same Methane gas can be generated in integrated Dairy Farming in more eco-friendly way with zero addition of Carbon Dioxide to the environment which reduces the dependence on fossil fuels directly, thereby saving foreign exchange.

Future Thoughts: -

With the rich experience and success in Integrated Dairy Farming, we strongly believe it is more competitive and has many advantages compared to conventional dairying.

The future of our dairy industry will have to be built on quality and quality alone to achieve and meet world-class standards and to reduce Production Cost for finding rightful place in global market.

To reach this target, we must start DAIRY COLONIES in each village and establishINTEGRATED DAIRY FARMS, where we can produce-

1. Good Quality Milk at reduced farm gate price
2. Cooking Gas
3. Electrical Power and
4. Organic Fertilizers.

10.HEALTH CARE PROJECT

Sri Prakash Educational Institutions started in the year 1977, catering the educational needs of students of Villages around 30 to 40 km radius of neighbouring districts of present Visakhapatnam, Anakapalli and Kakinada under the motto "Promotion of rural education leads to the prosperity of nation". Sri Prakash Educational Institutions have always focused on overall development of the students

During the periodic reviews of the institutions, it has been found that frequent absenteeism of students has become harmful to the academic growth of students. Probing deeper into the issue it is found that students are falling sick frequently and hence the absenteeism. It is also found that not only students but even their parents are suffering

SPACES Degree College management has a long association not only with all these villages but also the villagers as we are providing educational facilities to their children." A Strong mind lives in a strong body". As we are providing educational facilities, we felt it was our moral responsibility to provide a right education on health.

SPACES Degree College has taken the social responsibility of education the rural population of these areas and entrusted the responsibility to the students of SPACES Degree College for further study.

Students of SPACES Degree College both from NCC and NSS wing conducted a study and concluded that the people of those areas suffering with different joint pains, low neck pain, spondylitis, Sayatica pains etc. Frequent interaction with the people to know about the reason for their frequent falling sick. Our team of students found the following reasons for the same.

a). Most of the time people in these villages are seeking the help of local pharmacist and vendors to get relief from their ailments,
b). This indiscriminate use of allopathic medicines in turn is leading to side effects and other problems,
c). People started looking for alternative medicine and are willing to go for Ayurvedic medicine as their fore fathers used Ayurveda for its good effect as Ayurvedic science of medicine is based on the principle that prevention is better than cure. Ayurveda focuses on the root cause of the health problem and then provides remedies Accordingly.

The students of SPACES Degree College conducted awareness camps and workshops on Ayurveda under the guidance of medical professionals and doctors. People realized the importance of treating the root cause instead of symptoms.

All this had led to the establishment of Sri Prakash AYUSH Charitable Trust. The Founder of the Trust, and Secretary & Correspondent of Sri Prakash Educational Society Sri Ch.V.K.Narasimha Rao's own experience with Ayurvedic Medicine has helped the cause. Today people in the villages are slowly drifting towards building a healthy life style rooted in Ancient Indian Ayurvedic systems. Yoga is also promoted in a big way as now it is proved that 'YOGA' is king of all exercise and prevention is better than cure.

Sri Prakash AYUSH Charitable Trust caters the need of surrounding village people suffering from different ailments like Joint pains i.e., Osteo Arthritis, Rheumatoid Arthritis, Poly Arthritis, Low back ache, through Medications and Pancha Karma treatment and some types of skin diseases. Panchakarma, the comprehensive Ayurvedic therapy for ultimate mind-body cleansing, involves five types of Ayurvedic therapeutic measures

1. Vamana (Emesis)

2. Virechana (Purgation),

3. Vasti (Medicated Enema)

4. Nasya (Nasal Medication)

5. Raktamoksha (Blood Letting)

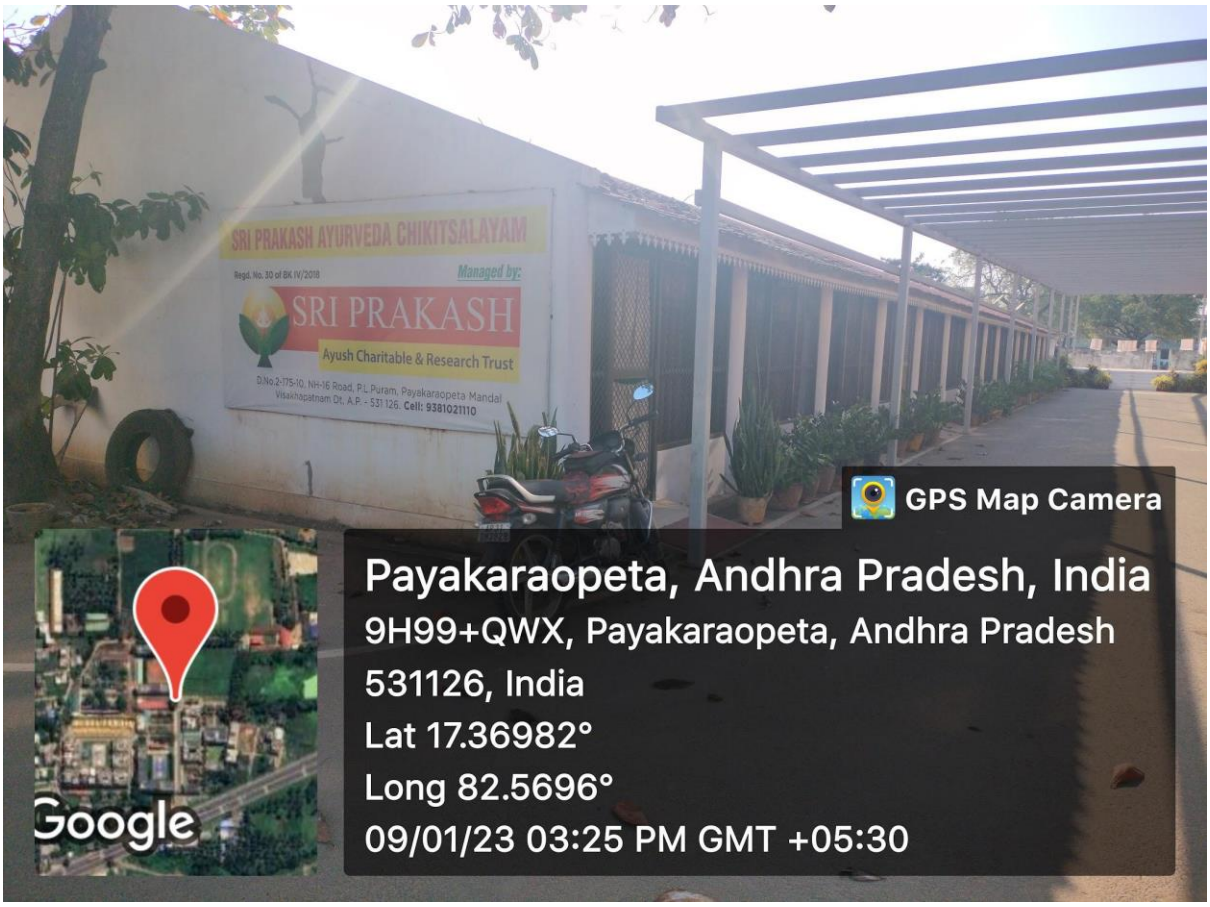
These are used to detoxify the body and successfully eliminate disease causing toxic elements. It is often undertaken for the purification of the body, as Ayurveda highly recommends body purification and detoxification before starting a therapy or a treatment. Apart from Ayurvedic detoxification, Panchakarma is also recommended to strengthen the immune system of the body in order to restore the overall balance and well-being. According to Ayurveda, good health is one of essentiality to boost the metabolic activities of our body. Thus, Panchakarma is traditional Ayurvedic cleansing processes that completely flush out the toxins, and successfully restore the innate health and healing ability

Benefits of Panchakarma treatments are as follows:

* Removes the root cause vulnerability to diseases.
* Balances Vata, Pitta and Kapha.
* Boosts your immune system and body's vital systems.
* Remove disease causing toxins.
* Increases physical and mental efficiency.
*Improves skin complexion.
*Helping in shedding extra weight
* Help alleviate insomnia, anxiety and mental problem.
* Increases vigour and stamina
* Increases the flexibility of joints

HEALTH CARE RESEARCH PROJECT COST:

S.NO	CONTEXT	EXPENDITURE
1	Research Study and Analytics	Rs. 1,80,000
2	Infrastructure development 2.1 Buildings-4500 sft @ 670/sft 2.2 Hospital equipment 2.3 Laboratories creation	 Rs. 30,00,000 Rs. 2,35,000 Rs. 1,50,000
3	Recurring Expenditure every year 3.1 Doctors and Staff 3.2 Medicines 3.3 Health Camps etc 3.4 Maintenance 3.5 Travel & transportation	 Rs. 17,20,000 /year Rs. 4,50,000 /year Rs. 4,45,000 (During the year 2022-23) Rs. 5,10,000 (During the year 2022-23) Rs. 4,75,000 (During the year 2022-23)



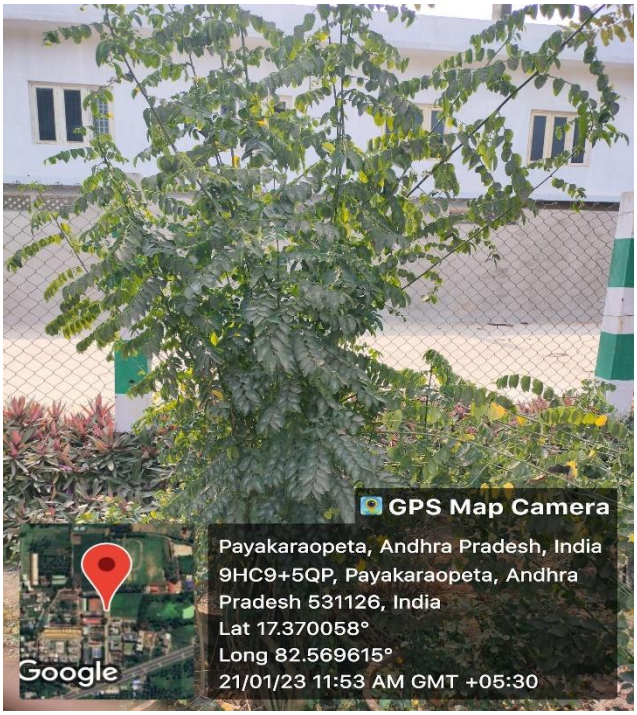
SRI PRAKASH AYUSH CHARITABLE AND RESEARCH TRUST

SRI PRAKASH AYUSH CHARITABLE AND RESEARCH TRUST

AYURVEDIC TREATMENT INFRASTRUCTURE

MEDICINAL PLANTS GROWN IN THE CAMPUS

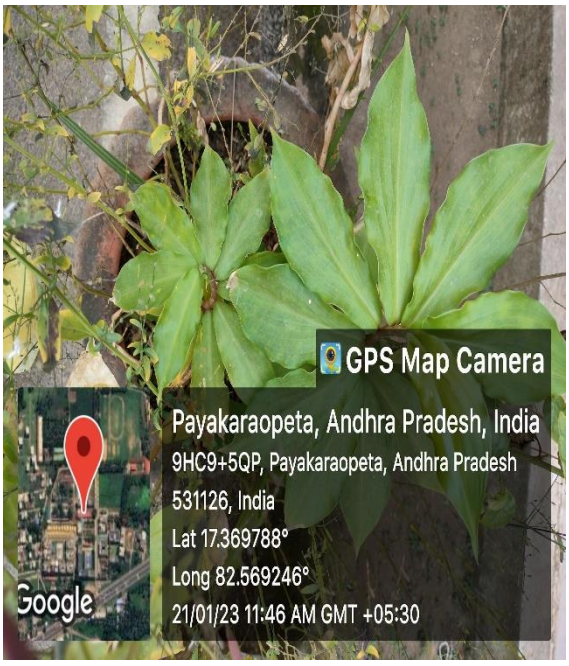
1)Multivitamin Plant - Thavasi Keerai (Chakramuni plant)



Multivitamin plant is a home-grown medicinal plant. It can be directly utilized for vitamin deficiency. Other common names: sweet leaf bush, multivitamin plant, chekkurmanis, checkup manis, cangkok manis or katuk. All vitamins available in this plant leaves except vitamin D. It is a small bushy tree. It is a hardy plant and therefore it can grow in any climate and soil types.

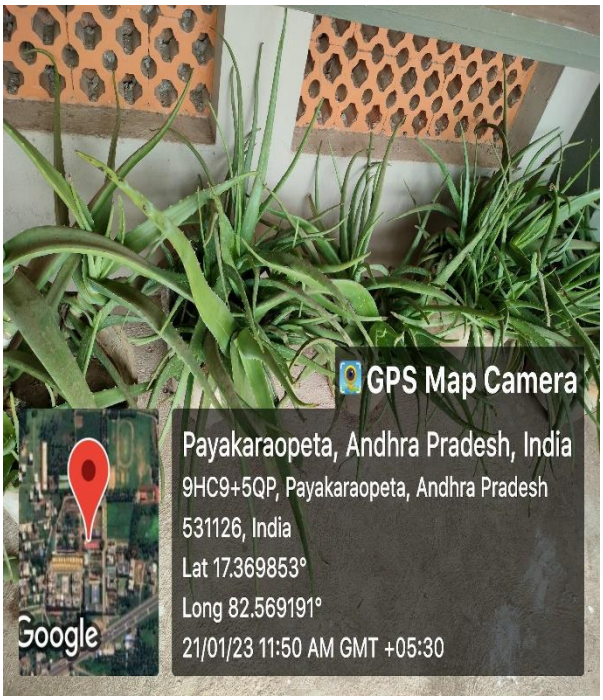
2)INSULIN PLANT (DIABETIC HERB SUGAR PLANT)

Costus igneus, commonly known as an insulin plant in India, belongs to the family Costaceae. Consumption of the leaves are believed to lower blood glucose levels, and diabetics who consumed the leaves of this plant did report a fall in their blood glucose levels.



3)ALOE VERA PLANT

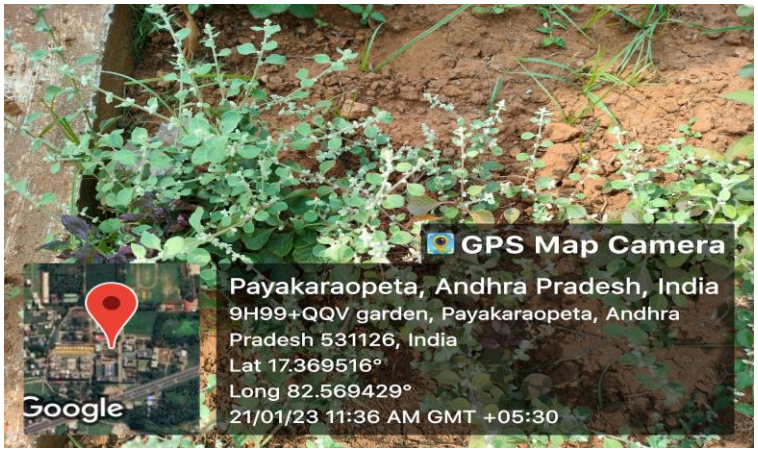
Traditionally, this medicinal plant has been employed to treat skin problems (burns, wounds, and anti-inflammatory processes). Moreover, Aloe vera has shown other therapeutic properties including anticancer, antioxidant, antidiabetic, and antihyperlipidemic



4 .Kidney Stone Live Plant / Air Plant / Kalanchoe pinnata Plant / Patharchatta Plant (Ranapala)

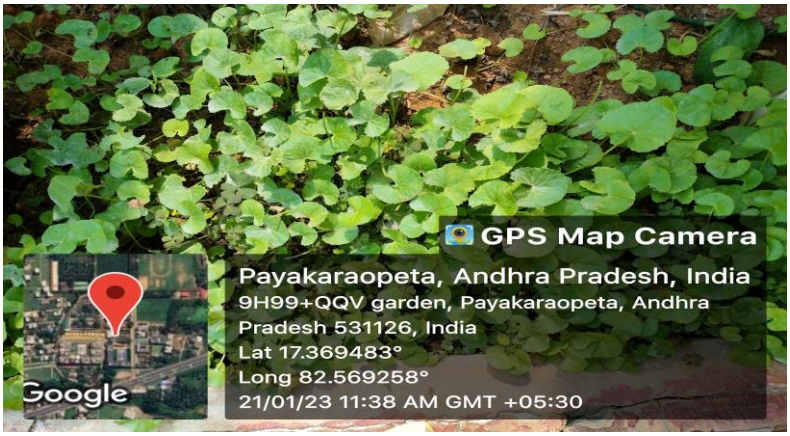
They can be cooked or put raw in salads as well. The leaves are used medicinally and have mild pain-relieving properties and can be put on scratches too in order to stop the stinging pain and they are also used to put on minor burns and scalds. But the most important use the leaves have is to treat kidney stones.

5) Aerva lanata (Kondapindi) Konda Pindi or Siru Pulai is a powerful herb to melt kidney stones and to cure urinary infections. Fresh leaves are collected and dried under shade to ground to powder.



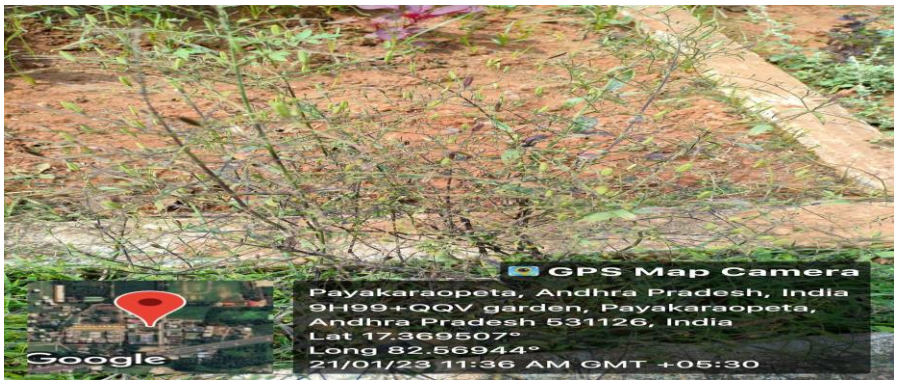
6) INDIAN PENNYWORT, ASIATIC PENNYWORT (SARASWATHI AAKU)

These leaves are from a small plant which grows at any places where water and humidity is present. It improves brain power, memory, helps in treating stomach ache, indigestion, cold, cough and skin allergy.



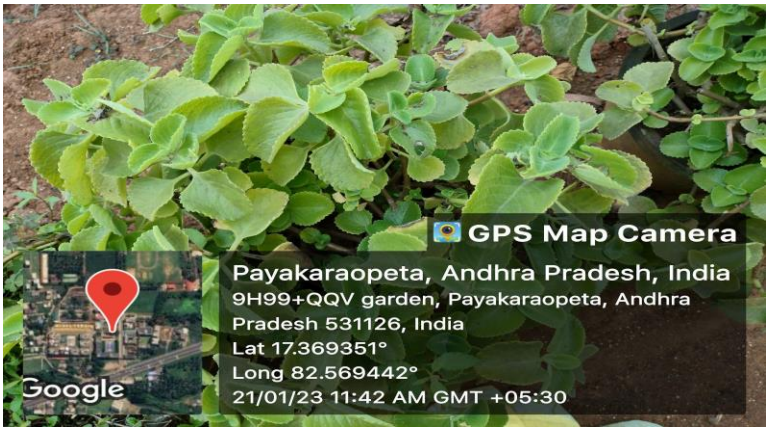
7) ANDROGRAPHIS PANICULATA (NELA VEMU)

Nilavembu helps to manage blood sugar levels and is useful for people suffering from diabetes. It also helps fight cancer and detoxifies the liver. Its rich source of antimicrobial and antiviral properties helps manage all kinds of fever including dengue, typhoid, influenza, malaria and chikungunya



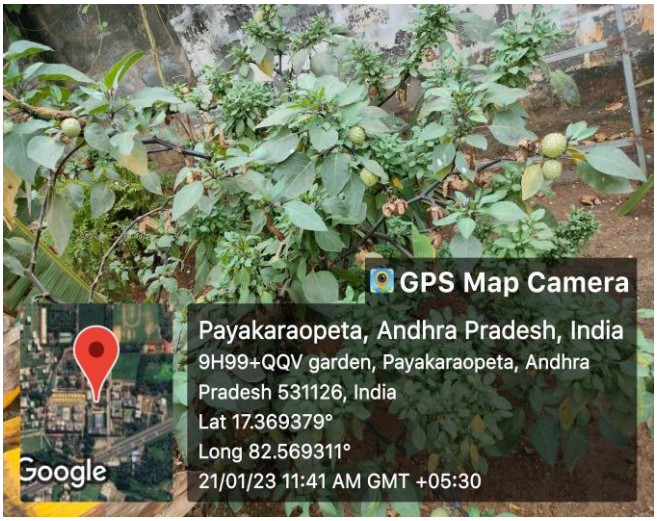
8)COLEUS AMBOINICUS/AJWAIN (VAMU)

Active enzymes in ajwain improve the flow of stomach acids, which can help to relieve indigestion, bloating, and gas. The plant can also help to treat peptic ulcers as well as sores in the oesophagus, stomach, and intestines.



9)DATURA PLANT (UMMETHA)

The seeds of Datura are analgesic, anthelmintic and anti-inflammatory and as such, they are used in the treatment of stomach and intestinal pain that results from worm infestation, toothache, and fever from inflammation. The juice of its fruit is applied to the scalp, to treat dandruff and falling hair.



10)CARISSA CARANDAS (VAKKAYA)

Carissa carandas is rich in iron, vitamin C,vitamins A, calcium and phosphorus.

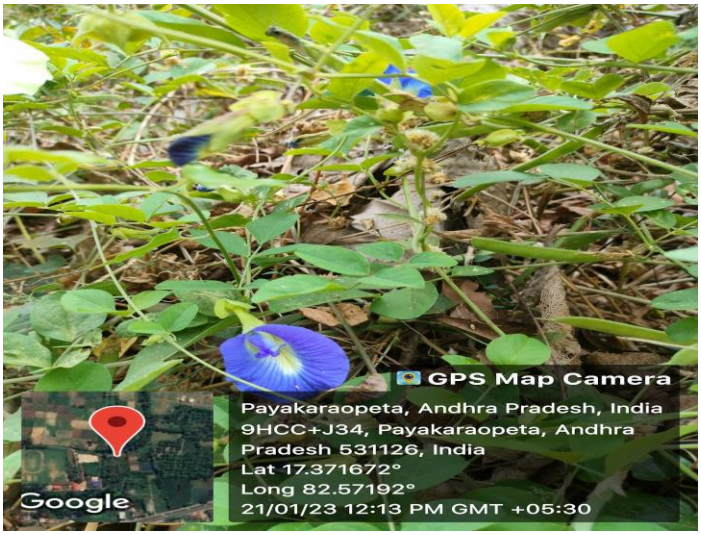
Its fruit is used in the ancient Indian herbal system of medicine, Ayurvedic, to treat acidity, indigestion, fresh and infected wounds, skin diseases, urinary disorders and diabetic ulcer, as well as biliousness, stomach pain, constipation, anaemia, skin conditions, anorexia and insanity

11)RICINUS COMMUNIS (CASTER)

Different parts of the castor plant gained importance because of their utilization for medicinal uses. The leaf can be used in the treatments related to antiviral, biliousness, burns, ear and headache, malaria and night blindness while stem is used to treat cancer and hypoglycemia.

12)CLITORIA TERNATEA /BLUE PEA, BUTTERFLY PEA (SANKAM FLOWER)

The medicine made from these plants is used to treat brain illness, problems with the female reproductive organs and sterility, etc. All the parts of this flower can be consumed for good mental health and also to improve mental conditions.



13)Abutilon indicum (Tutturu Benda, Duvvenakaya)

It is useful in gout, tuberculosis, ulcers, bleeding disorders, and worms. It can be used as Digestive, laxative, expectorant, diuretic, astringent, analgesic, anti inflammatory, anthelmintic, demulcent and aphrodisiac. Decoction used in toothache and tender gums.

14)CHITRAK PLUMBAGO ZEYLANICA (CHITRA MANDAL AAKU)

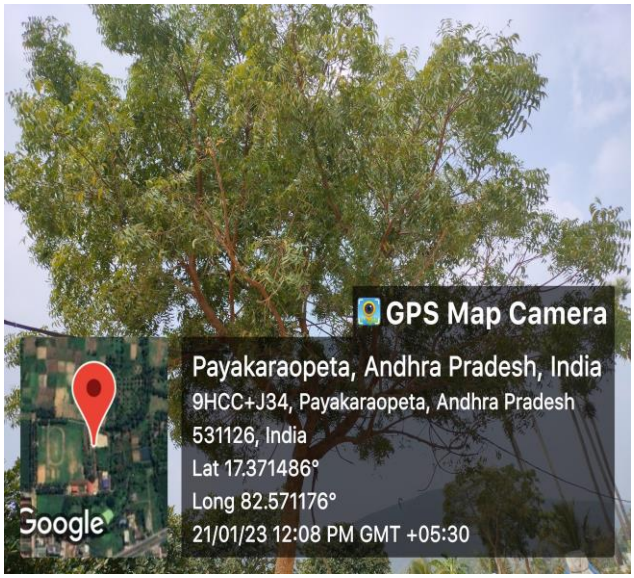
Leadwort is a potent medicinal agent used in the treatment of stubborn chronic rheumatoid arthritis, skin diseases and tumorous growths as recommended by Ayurveda. It also finds its use in correcting chronic menstrual disorders, viral warts and chronic diseases of the nervous system.

15) CARICA PAPAYA (BOPPAYI)

Papaya is used for preventing and treating gastrointestinal tract disorders, intestinal parasite infections, and as a sedative and diuretic. It is also used for nerve pains (neuralgia) and elephantoidal growths.

16) Azadirachta indica (NEEM)

Neem leaf is used for leprosy, eye disorders, bloody nose, intestinal worms, stomach upset, loss of appetite, skin ulcers, diseases of the heart and blood vessels (cardiovascular disease), fever, diabetes, gum disease (gingivitis), and liver problems. The leaf is also used for birth control and to cause abortions.



17) SYZYGIUM CUMINI (NEREDU)

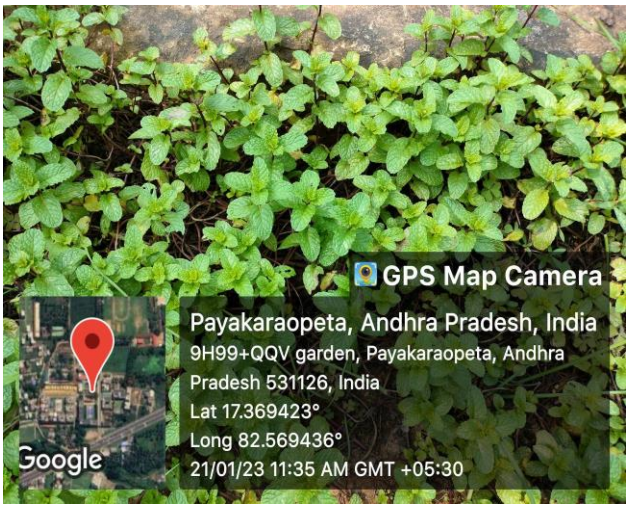
Syzygium cumini is an important Ayurvedic herb which has been used in Ayurveda for the treatment of diabetes, worm infection, asthma, diarrhoea, cough and cold.

18) INDIAN GOOSEBERRY /AMLA (VUSIRIKA)

The fruit is used either alone or in combination with other plants to treat many ailments such as common cold and fever; as a diuretic, laxative, liver tonic, refrigerant, stomachic, restorative, alterative, antipyretic, anti-inflammatory, hair tonic; to prevent peptic ulcer and dyspepsia, and as a digestive.

19)MINT (PUDINA LEAVES)

Mint is perhaps most popularly known as a remedy for digestive problems. Taking peppermint oil reduces abdominal pain and helps treat irritable bowel syndrome without producing side effects.

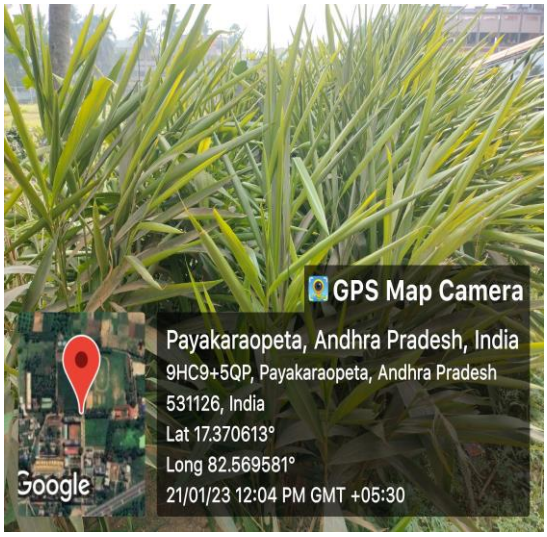


20)OCIMUM TENUIFLORUM(TULSI)

Tulsi has also been shown to counter metabolic stress through normalization of blood glucose, blood pressure and lipid levels, and psychological stress through positive effects on memory and cognitive function and through its anxiolytic and antidepressant properties

21) ELETTARIA CARDAMOMUM (ELACHI)

Cardamom is an herb. The seeds are used to make medicine. Cardamom is used for digestion problems including heartburn, intestinal spasms, irritable bowel syndrome (IBS), intestinal gas, constipation, liver and gallbladder complaints, and loss of appetite.



22)CURCUMA(TURMERIC)

It was traditionally used for disorders of the skin, upper respiratory tract, joints, and digestive system. Today, turmeric is promoted as a dietary supplement for a variety of conditions, including arthritis, digestive disorders, respiratory infections, allergies, liver disease, depression, and many others.

23)CISSUS QUADRANGULARIS (NALLERU)

The nalleru plant is mentioned in Ayurvedic texts in regards to medicine. Different parts of the plant were used to cure many diseases that included, but were not limited to, osteoporosis, healthy digestion, piles, and diabetes.

24) ZINGIBER OFFICINALE (GINGER)

Ginger has been used for thousands of years for the treatment of numerous ailments, such as colds, nausea, arthritis, migraines, and hypertension. The medicinal, chemical, and pharmacological properties of ginger have been extensively reviewed

25) HEDYCHIUM SPICATUM(KACHURALU)

Kachur is a very useful herb to manage the symptoms of cough and cold because of its Kapha balancing nature. It also helps to improve digestion and manages indigestion as well as loss of appetite because of its Deepan (appetiser) and Pachan (digestive) properties.

26) VITEX NEGUNDO (VAVILAKU, NIRGUNDI)

Nirgundi is a large aromatic shrub found mostly in the warmer zone of India. In Indian traditional medicine system, it is referred as ‘sarvaroganivarani’ – the remedy for all diseases. Nirgundi might be helpful in managing diabetes by improving insulin levels due to its antioxidant property. It also helps manage inflammatory reactions by inhibiting the activity of certain mediators due to its anti-inflammatory property.