



Newsletter

GOOD FARMING – GOOD FOOD

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Good Farming – Good Food

Sustainable Food and Nutrition Security and Transforming Smallholders' Livelihood
Solidaridad Asia



Solidaridad





GOOD FARMING – GOOD FOOD

FROM THE PEN OF PROGRAMME COORDINATOR



Dear Readers,

Like the rest of the world, India does its best to enable food security for its people. The additional food stock drives a sense of confidence in the functioning government of our country. The present status of our agricultural economy is, by all means, a collective effort of everyone associated with the farming sector working for constant improvement. Good Farming – Good Food is only a small but vital initiative in the time frame of its development. With every passing year, the programme leaves a lasting impression upon the farming community of Madhya Pradesh. The two-fold objective of sustainable integrated farming system and nutritional awareness only forms the outer crust of this visible change. An increase in livelihood and acceptance of Farmer Producer Organisations as a working model of the community's collective enterprise forms the programme's core.

Plentiful rain and promising weather for the coming months have marked the arrival of the Kharif season in Madhya Pradesh. We could see the smiles on our farmers' faces with every short spell of rain. Rains are crucial for Kharif crops and far more critical for the soybean. A stark drop or increase in the showers can prove fatal for the final yield. To minimise the adverse effect of weather, a handful of agricultural practices that increase the crop's resilience towards climate are necessary before and during the sowing period. In the previous months, we had made sure that the farmers receive the due training that helps prepare the fields. This month, we move towards the management of nutrition and weed. Along with good agricultural practices, our motive of spreading the awareness on nutrition continues with detailed sessions on protein, balanced diets, and self-assessment.

The months beginning also marks the celebration of soy week celebration. Our farming community thoroughly enjoyed the exciting training exercises, mentored by experts from the programme. On a similar line, we also celebrated World Environment Day as a souvenir of our responsibility towards our planet.

The programme has found its greatest support from the acceptance by the farming community and determined assistance by the stakeholders. The modest and selfless support from the Netherland Enterprise Agency also deserves mention and a note of appreciation.

We would continue bringing updates to you every month, but at the same time, we would also like you to know that our newsletters are a platform for your progress as well. I want to invite our stakeholders to bring their side of the stories and development to the Good Farming – Good Food newsletter. Our able editing and publishing team eagerly waits for the updates.

Wishing you all a fruitful Kharif season and happy reading.

Dr Suresh Motwani
Programme Coordinator
Good Farming – Good Food



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GOOD FARMING – GOOD FOOD

Ground Activities

INTER CULTURAL OPERATIONS AND WEED MANAGEMENT

Weed is capable of causing tons of loss to the soybean producers in India. With the passage of time, new weed management challenges have surfaced, which need to be addressed. A basic understanding of the weed and its type is thus essential for the farmers to bring a control measure to their farming environment. With new challenges, a shift in the management strategy is also crucial, which considers the safety of our environment. The removal of undesirable plants from the field and sustainably executing the process thus becomes an important issue.

Agriculture is science more than an art. The improvement in technology and understanding of the field has brought breakthroughs in the process of weed management. It is adequate to say that this transition from traditional to a modern agricultural technique is bound to redress the growing issue of weed in soybean farming. Different factors may affect weed growth like species, growth stage, climatic conditions, etc. The selection of a weed control method thus depends upon the factors that encourage its growth.



Under the Good Farming – Good Food programme, Solidaridad and its partners organise multiple training sessions for the farmers from five districts of Madhya Pradesh. The training sessions are themed according to the time and crop requirements. With the arrival of the Kharif season, farmers require a solid and reliable start. Therefore, several training programmes to enhance the learning and understanding of farmers regarding weed and its management were organised in the month of June. Notable and

renowned subject specialist Dr Amar Nath Sharma helmed the educational exercises through an established communication channel for more than 60 farmers. An introduction to facts and figures becomes vital to support the understanding of the problem. A brief prologue to the losses faced by farmers due to weeds, pest and other undesirable complications forms the base of training. Weed impacts soybean production in many ways. Almost 50 per cent of loss seen in total agricultural production is due to failed or unheeded weed management strategies. Weed can seize essential growth elements like water, air, light, and nutrients from the crop. They are also known to reduce crop quality by contaminating seeds in crops. Since the weeds are known to reduce the available moisture in the soil, it delays the ripening of the seeds and the plant's overall development.

There are various weeds in soybean like *Cyanotis axillaris*, *Euphorbia geniculata*, *Echinochloa crusgalli* etc. Each weed requires a specific means of control. Therefore, the farmers should know three basic weed management strategies: prevention, control, and eradication. When sowing, it is always advised to use certified seeds purchased from trustworthy sources. Traces of unwanted seeds are often found in seeds purchased from unauthorised sources. Similarly, keeping our harvesting machines clean and the use of good and matured manure with no trace of weed would help prevent the growth of weeds during the crop growth phase.

Farmers are also suggested to perform deep summer ploughing, weed removal by hand-pulling and hand hoeing. The physical reduction can also be achieved by using machinery like disk harrow or disk ploughing by a tractor. Intercropping methods like planting pigeon pea, maize also discourages the growth of weeds. There are different ways to control weed infestation through the use of chemicals.



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INTER CULTURAL OPERATIONS AND WEED MANAGEMENT

A range of herbicides can be incorporated before and after sowing. A combination of effective weedicides like Pendimethalin + Imazethapyr, Chlorimuron ethyl and Bentazone with its suggested amount per hectare is provided to the farmers during the sessions.

Our ability to control the growing weed population decides the final food production for the country and its people. Sustainable and successful farming would ensure both the growth of the farming community and the country's food security. With the planned interventions by Good Farming – Good Food, the farmers of Madhya Pradesh are expected to gain improved results in farming and earn a better livelihood.

Ground Activities

PRE-SOWING TRAININGS

A number of pre-sowing activities already precede the sowing exercises. Preparing the fields by ploughing, removing weed, summer deep ploughing, and adding soil nourishments is essential for sowing. Before the sowing, many farmers tested their soil for the values of Nitrogen, Phosphorus, Potassium, and its alkalinity. Based on the results, experts recommended the use of fertilisers in the correct quantity. With the use of soil conditioners, the farmer can expect a better yield and an excellent monetary saving in his agriculture inputs.

The farmers are also provided with the technical data on seed rate. It is often recommended to keep the seed rate at 75 Kg per hectare, especially when the seed germination test gives a favourable result of 70 per cent germination or more. The seed rate also considers the size and weight of the seeds and varies accordingly. By adopting a proper seed rate, the total harvest can range around 4 lakh per hectare. But it is vital to choose the seeds from a trusted vendor, and the variety should be the one recommended for the area.

Ideally, a crop should be sown when the time, moisture, and temperature are congenial for seedlings' rapid and uniform emergence. Even the photoperiod becomes important during such exercises for the rapid and consistent development of plant canopy. Sowing time is also an essential factor in deciding the time for crop maturity. The



prevalent environmental condition of the area like- hailstorms, dry spells, and incessant rains, can be avoided by planning and executing soybean sowing time.

The farmer should understand the importance of an optimum sowing date. It builds a balance between sowing at a period where the farmer can escape the poor climatic conditions after maturity and before the harvest. Such time frames can be challenging for the farmers if done without assistance and recommendation. Therefore, agricultural experts from Solidaridad assist the farmers in recognising such time frames for minimising seed deterioration.





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PRE-SOWING TRAININGS



Farmers are also taught to recognise the early signs of pest infestation. Although the farmers can choose from the pest-resistant varieties and perform seed treatment, pest management knowledge becomes crucial for cases where pests have built resilience towards pesticides. Thus, it is essential also to keep the sprayers and power sprayers clean and ready for use anytime. With Good Farming – Good Food, thousands of farmers have benefited from guidance by experts under the programme. Many other exercises proceed with the sowing practices, and the programme would keep bringing expert guidance to the farming community of Madhya Pradesh in the future.

Ground Activities

TRAINING OF RURAL ENTREPRENEURS ON SOIL TESTING

Soil is the very foundation on which the entire machinery of agriculture operates. In the simplest form, the soil is the upper layer of Earth that supports plant growth and can be dug or ploughed as a field for food's mass production. It contains an inconstant mixture of broken and weathered organic matter, water, gases, nutrients, and minerals vital for proper plant growth. Thus soil act as a primary compound of life. Just like a human body, soil also requires replenishment. However, growing pollution, unwarranted weather, excessive farming and many factors have depreciated soil fertility. This damage to the soil ecosystem has endangered the livelihood of farmers and the status of food security for many developing countries. To meet the increasing food demand of the world, decisive steps towards soil conservation and its proper utilisation is necessary. Good Farming – Good Food, with support from its partners, has secured multiple soil testing kits essential for determining soil fertility by testing Nitrogen, Phosphorus, Potassium and Acidic value (Ph value) of soil for the farmers. A good number of young and motivated entrepreneurs are also trained in the soil testing process. The amalgamation has enabled the farmers from the five districts of Madhya Pradesh to test their farm soil before the sowing activity of Kharif season starts. The testing would help them quantify and analyse the correct requirement of soil conditioning. It would also help the farmers save a large amount of money often wasted on fertilisers and manure. Similarly, the entrepreneurs would receive a chance to explore new opportunities in agriculture and its scientific enquiries.

It is common in a developing country to see a farmer struggle to choose the right type of fertiliser for his field. To know the requirement of crops and existing characteristics of the soil become essential when selecting the soil conditioners. Thus, soil testing is imperative in the pre-sowing phase. Testing would help the farmers know the nutrition value of their farms and help in obtaining improved yield.



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TRAINING OF RURAL ENTREPRENEURS ON SOIL TESTING

The entrepreneurs are trained to test Ph, N, P and K at the same site with the available testing kit. The kit consists of reagents, measuring devices, storage bottles, mixing solutions and funnels to obtain instant results. Before the reagent is used, sample soil is collected from various portions and a specified depth of the crust. The samples are then taken to a clean place where the entrepreneurs would use the testing kit and provide results to the farmers. A colour chart is supplied in the kit to obtain the result, which helps conclude the findings.

The primary reason behind testing is to forecast the right amount of fertiliser and manure, which would help promote the best yield for the soybean crop. Soil testing is the only available means for calculating nutrient deficiencies, imbalances, and fertiliser recommendations. This would also help in obtaining a profitable response from the agriculture inputs. Agriculture experts also analyse the results obtained from the test. Under Good Farming – Good Food, eminent scientist and experts collaborate and provide the farmers with suggestions based on the findings. The farmers can also contact the experts through established communication channels and convey their doubts.

Nutrition Bulletin

HEALTHY FOOD AND HEALTH ASSESSMENT

One of the significant determinants of health is optimal nutrition from one's dietary sources. Consumption of scientifically approved and medically recommended food is known to promote growth and prevent or reduce the progress of diseases. Since the healthy food is necessary for self-consumption. Lack of nutritious food can increase the chances of chronic diseases like hypertension. Unfortunate people suffering from anaemia needs a constant boost of a healthy diet to reduce the ill effects of the disorder. Therefore essential nutrients of a diet like carbohydrates, fats, and protein are necessary for everyone's diet.



Good Farming – Good Food and its associated partners organise training and awareness programmes for the farmers of Madhya Pradesh to help them understand the importance of healthy food and self-assessment. The exercises aim at bringing a lifestyle change to the farming community of five operational districts with the help of its qualified nutrition team.

What we eat and how we eat has a reflective effect on our life. Food can have a lasting impact on one's life span. With

Increasing research around the topic, people slowly realise the factors that affect the role of total and inclusive nutrients in one's diet, which is dependent on the consumption of healthy food. During the awareness and training sessions, the participating farmers get a chance to review their dietary pattern and compare it with the recommended food by the dieticians and nutrition specialists. They also receive exposure to a list of healthy food and its benefits. A variety of food like soy chunks, soy milk and tofu, all derived from soybeans, are rich in protein and helpful in diminishing the effect of anaemia. Green leafy vegetables are a branded source of various micro and macronutrients, which are vital for the holistic development of the human body.



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HEALTHY FOOD AND HEALTH ASSESMENT

Choice of food is thus crucial for people from rural communities who are more exposed to labour-intensive work. In most cases, the recommended healthy food consists of vitamins and minerals in varying doses. If the food is healthy and the balance of nutrition is correct, the person would receive the right amount of energy to work efficiently.

An equally important role is played by dietary assessment. Farmers are encouraged to keep a record of their food consumption. This exercise of self-assessment can help them recognise the excesses and absences in their daily diet. The information generated would help the nutrition experts to formulate an effective diet plan. Collection and record of such robust data may also help in deriving the nutritional status of the community. The self-assessment exercise includes not only the type of food consumed but also the portion size. A record of body mass index and weight helps to measure the total change/effect on the body and diet recommendation.

Nutrition Bulletin

PROTIEN DIET

Protein plays a vital role as one of the major food components for providing necessary nutrition. Protein is an organic compound consisting of essential amino acid made of carbon, hydrogen, oxygen and nitrogen. The fundamental role of protein in sustaining life can be clearly understood by its function of forming the protoplasm of all cells in living beings. Protein derived from plants and animal for self-consumption helps to maintain a steady growth of body and mind.

Good Farming – Good Food, along with its partners, have organised Nutrition Chaupal for the farming community of Madhya Pradesh. The awareness and training sessions are drawn around the redressal of malnutrition which is common in rural sectors of the country. Under the session, a special guest from the soy processing industry- Mr Anoop Kumar Mishra, General Manager for Vippy Industries and reputed expert from government institute- Dr Meenal Phadnis from M.L.B college Bhopal, addressed the participants with their experience and knowledge. Under the training sessions, the participants are told in detail about the role played by protein in the holistic growth

Of humans. Amino acid, present as a subpart of protein in a protein-rich diet, is essential to developing body muscles and maintenance. It is critical to determine the functional requirement of protein in everyone's diet. The need may vary according to age and gender, and health condition of the person. Growing children and pregnant women generally require more than the average value of protein in their diet. Children and infants, when developing, shows a substantial change in the length and mass of their body. In such cases, the requirement of different amino acids is fulfilled by protein-rich diets obtained from plant and animal sources.

When one talks about protein, a non-vegetarian diet often comes first to everyone's mind. But in a country like India, not everyone can support or adopt such a diet due to cultural or financial constraints. In such cases, soybeans and their associated products can prove highly beneficial, primarily because of their availability and low cost. Products like soy chunks, soy milk and tofu are readily available in the market and provides ample protein intake for a growing family.

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Weekly Nutrition Choupal
(Every Saturday 12:00 to 1:30 PM)

Protein Rich Diet

Date:-19 June, 2021

Nutrition Expert
Dr. Meenal Phadnis
Govt. M.L.B. Girl's P.G.College, Bhopal

Agenda

- ❖ Awareness on nutrition of Soya chunks and Soya flour, among community.
- ❖ Importance of protein rich diet in daily meals.
- ❖ Comparison between animal protein and plant protein.

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Mrs. Nidhi Karoliya-9111164383





GOOD FARMING – GOOD FOOD

PROTIEN DIET

The widespread problem of the food supply has haunted many developing countries for decades. A well-balanced diet and the cost of food become increasingly dependent on each other. A constant struggle between demand and supply chain becomes expensive for the underprivileged people of the country. Therefore, new sources of nutrition derived from processed and unprocessed soybean products can readily address the impending issue of food security and the national nutrition index. It is also vital for entrepreneurs to develop and utilise available technology to provide nutritionally wholesome and economically viable food for the country's growing population. The increasing benefits of soy-based products and their commercial opportunities can benefit the farmers and ensure food security at the same time. Thus it becomes necessary for the rural community to understand the nutritional aspect of soy protein derived from processed and nonprocessed products. A cumulative advantage of such training exercises is to help the unaware people climb the food ladder and adopt a modest diet based on nutrition and science.

Products like soy flour and soy chunks in the daily diet are affordable and beneficial in the long run. Their nutritional value remains at the top of the chart. Many kinds of research and practical experience of its consumption have demonstrated that soybean is a much more nutritionally adequate protein than other expensive sources like eggs and paneer. Food to Indians is more than just a source of sustenance and nutrition. It is culturally preserved and traditionally consumed. During such training exercises, farmers are also provided with some of the best tasting recipes that can be used for cooking soybean in different taste and styles. Good Farming – Good Food is a programme that ventures into the role of collective community awareness on good agricultural practices and good eating habits. Thus, nutrition becomes a focal point of its awareness approach. Similar sessions would feature under the programme in the coming future.

Nutrition Bulletin

BALANCED DIET



Good Farming – Good Food, along with its prestigious partners, strives to reach the farming community of Madhya Pradesh with a motive to raise the level of nutrition awareness. To amplify its reach, the nutrition team from Solidaridad organises a weekly awareness training programme called *Nutrition Chaupal*. Women farmers from

The five districts and Nutri Sakhis and para workers converge through effective digital means of communication to gain knowledge from the session on a balanced diet. With Mrs Nidhi Karoliya as the nutrition expert, the virtual session reached out to more than 25 farmers.



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GOOD FARMING – GOOD FOOD

BALANCED DIET

The session was organised to highlight the importance of nutrition along with its role in a balanced diet. We have witnessed a subtle and robust push of the green revolution through an increase in agricultural yield. Still, not much consideration was given to health and nutrition, which is directly or indirectly associated with food production and subsequent consumption. A dynamic change in eating habits throughout the country has further attenuated the national nutritional status. Fast food, excessive fasting, improper diet schedule and growing genetic and hereditary diseases have emphasised the need for a balanced and nutritious diet. For the younger generation, healthy food like green vegetables and fruits are non-existent. Educating women from the Indian society, who has a greater say in household cooking, thus becomes imperative.

The session gave a brief understanding of how nutrition defines the overall health of the human body. People have often overlooked the existing deficiencies in their body. In addition, consumption of vital micro and macronutrients has also been neglected. Therefore, the overall health index is in a state of disrepair and is bound to overburden the country's medical sector if left unaddressed. With a healthy diet, the problems arising out of malnutrition can be addressed with much ease. This food-based solution derived from nutritionally enhanced grains and cereals would help the population manage growing issues like anaemia and hypertension. A balanced diet is equally necessary for increasing productivity and efficiency as much as it is for general well-being. A balanced diet is simply inculcating a variety of food which are capable of providing all the right nutrients needed for proper growth and health. Such diets are also economical because it is utilised efficiently by our body. Generally, such a balanced diet would include food rich in nutrients like iron, protein, calcium, carbohydrates, fats, and Micronutrients like Vitamin A, B, D, E and Iodine.

Food prepared from green and leafy vegetables is high in necessary nutrients. Similarly, people who suffer from anaemia can obtain iron and protein from soy-based meals. The nutritionists, working tirelessly under the programme, provided the participants with many recipes which are known to boost their energy level and prove beneficial for their growth. Comprehensive knowledge of dietary intake helps the women farmers and their families choose from the best available options. It also encourages people to adopt a healthy lifestyle for a more extended period of time.

The role of food in determining overall well-being is undermined mainly in the modern era. Awareness campaigns and activities that help people realise the importance of nutrition is thus indispensable for many developing nations whose health system is already overwhelmed with the Covid -19 related complications. In such times programmes like Good Farming – Good Food can introduce a ray of hope to the rural farming sector of Madhya Pradesh. Similar training exercises would form the very base of the programme's nutrition initiative in future as well.

Nutrition Bulletin

FIBRE DIET AND WATER

Our growing dependence on fast food has gravely reduced immunity and health at large. Therefore, the role of dietary fibre in health and nutrition has lately received considerable attention. A higher intake of dietary fibre helps in promoting overall fitness and a healthier lifestyle. Dietary fibres, also known as roughage, are a part of our food intake, primarily found in carbohydrates. The fibres increase the bulk of consumed food finally excreted in our stool. Unlike starch, which is also common in carbohydrate-rich food, fibres cannot be broken down and digested into our body for absorption. Therefore, it passes through our large intestine, almost undigested.

The nutrition department for the programme Good Farming – Good Food conducted various awareness training programmes for the women farmers of Madhya Pradesh to raise their knowledge on the role of fibre and water in one's diet.



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FIBRE DIET AND WATER

Experts have recognised traditional sources of consumable dietary fibres. Cereals, oilseeds, legumes, fruits and vegetables are high in dietary fibre content. In fruits and vegetables, lignin constitutes the primary source of fibre, whereas cellulose forms the dietary fibre component in cereals. These fibres are again classified into two different categories, soluble and insoluble. Generally, cellulose and lignin are insoluble and considered beneficial for the human digestive system. They are to enhance bowel movement and support faecal bulk for easy and soft passage. Soluble fibre is helpful in the absorption of glucose and known to reduce cholesterol level. Most of the vegetables contain both types of fibres in varied proportions.

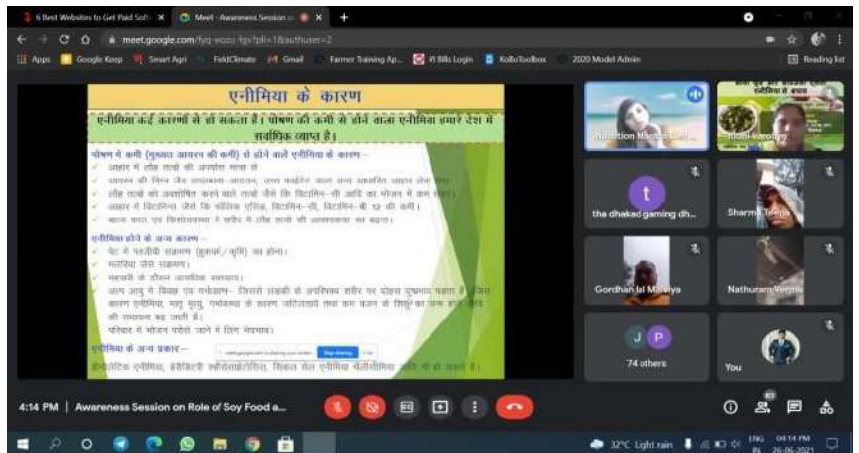
During the training session, interested participants are briefed about different cereals and their associated recipes that one should adopt to gain the maximum benefit out of their cooking. Fibre-rich foods are commonly known to be lower in calories. Many researchers have proven that the consumption of fibres in the diet helps in reducing body weight. It is also known to reduce the blood cholesterol level. Since fibres are not digestible, it makes us feel full, and it is less likely that one would overeat.

Like fibres and other necessary nutrients, consuming a good amount of water is also essential for maintaining healthfulness. Farmers are prone to dehydration due to their labour-intensive work. Attention should be paid to common symptoms of dehydration like headaches, fatigue, dizziness, skin rashes, and dark urine. Excessive dehydration may cause acute health problems like high blood pressure. Consumption of water is necessary for regulating essential body functions. It effectively maintains our body temperature, free movement of joints, detoxification through metabolism, etc.

Squeezing a slice of lemon in water will help in boosting recovery through the added citrus and vitamin C that comes with it. When spending time outside the house, especially in the heat, water becomes a life-saving resource. The effect of heat on the body can be devastating in hot seasons. Farmers are suggested to drink extra water when working outside in the fields to avoid dehydration because the chance of dehydration doubles when working directly under the sun.

Nutritionist suggests that drinking excess water can flush the essential nutrients and electrolytes out from the system which eventually limits the body's capacity to perform the task. Drinking water is also associated with many water-borne diseases. It is necessary to consume water that is fresh and treated for consumption. Pathogenic viruses, protozoa, and bacterias are responsible for inducing short term and long term illness in humans. Diarrhoea, cholera and amoebiasis are a few of the common diseases caused by contaminated water. Nutritionists from Solidaridad have requested the farmers to check the water consumed by their family. They have also suggested drinking boiled water when they are unsure of its quality.

Small measures in life make a significant impact. Under the programme Good Farming – Good Food, farmers are given exposure to nutrition and its associated awareness necessary for the growth of our farming community as a whole.



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GOOD FARMING – GOOD FOOD

Nutrition Bulletin

NUTRITION GARDEN

The programme has brought together various public and private partners to address the issue of malnutrition, especially for the vulnerable section of the people. The grave problems of malnutrition targets primarily children and women due to either their genetic/hereditary disorders or inappropriate diet. Along with the facilitation of good agricultural practices and livelihood for the farmers, their nutritional status becomes a priority that needs attention. Training and exercises on setting up nutrition gardens enable the community's farmers to secure nutritious vegetables for self-consumption. An observable change in the dietary pattern of the community would eventually reflect upon their well-being and the country's national health index.



Good Farming – Good Food works with hundreds of Nutri sakhis and lead women farmers to spread the word of nutrition amongst their community. The programme has brought together various public and private partners to address the issue of malnutrition, especially for the vulnerable section of the people. The grave problems of malnutrition targets primarily children and women due to either their genetic/hereditary disorders or inappropriate diet. Along with the facilitation of good agricultural practices and livelihood for the farmers, their nutritional status becomes a priority that needs attention. Training and exercises on setting up nutrition gardens enable the community's farmers to

secure nutritious vegetables for self-consumption. An observable change in the dietary pattern of the community would eventually reflect upon their well-being and the country's national health index.

Home gardens are different from farms. In farms, the crop is sown all at once and harvested all at once. Nutri Gardens (Kitchen Gardens) are made with the idea of continuity to provide nutrition to the farmers without a stop. The farmers are encouraged to use bio fertilisers and biopesticides to make the vegetable chemical-free. Many pesticides are known to enter our food chain through either their uncontrolled/excessive use or lack of knowledge about their use. It also increases the price of agriculture inputs when maintaining a garden. The farmers can avoid the cost by composting the biodegradable waste collected from the kitchen and household waste. Fruit and vegetable shavings, leftover food, and cow dung from the barns can be effectively converted into plant nutrition required for kitchen gardens.



Partners like East-West Seed have actively contributed to the cause by providing ready support to the farmers. They have assisted the women farmers in understanding the intricacies of growing a fruitful crop through sustainable methods. They have provided the interested farmers with garden kits ready for plantation. A variety of seeds ranging from Okra to Bitter gourd, Ridge gourd to cucumber have been sown by the farmers. An area of not less than 400 sqft is brought in use. During the training, many participating women farmers have shown interest in building a kitchen garden of their own.

Many in the community have secured a fresh supply of the seasonal vegetables for the coming future with new gardens in place. The monetary benefit derived from their decisions will also help them secure some money that is often spent on market purchases. With the consumption, they are bound to receive the recommended dietary nutrition to stay fit and healthy.



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GOOD FARMING – GOOD FOOD

NUTRITION GARDEN

Many demonstrations were also conducted for understanding the practicality of its application. The encouragement received will help the farmers continue with a healthy and beneficial habit of consuming only nutritious food. This behavioural change is bound to bring a drastic change in the rural community of Madhya Pradesh, where programmes like Good Farming – Good Food would continue to influence the life of farmers for a change that matters.

Event

SOY WEEK CELEBRATION

Soybean has been a source of nourishment for centuries. Native to East and South Asia, soybean also plays an essential role as a source of livelihood for millions of smallholder farmers. To mark the contribution of both soy and the farmers involved in bringing soybean to everyone's table, Solidaridad and stakeholders collectively celebrate Sustainable Soy Week every year. Under the programme Good Farming – Good Food, thousands of farmers took part in the celebration of Soy Week, which is observed during the sowing season.



The activities under the soy week celebration range from the training of farmers in good agricultural practices to awareness campaigns that revolve around the benefits of soy. Soy also plays a crucial role in the micro food processing industries. Products like tofu, soy milk and soy chunks form a chain of products that are not only nutritious but also easy to prepare. Thus, the farmers are also motivated to involve in the production of various soy products and explore the options to increase their livelihood. The women farmers were invited to learn the fringe benefits of soybean by including it in their meals. The nutrition team guided and informed the participants on the role of protein in the comprehensive growth of the human body.

Amongst many topics, a few of the sessions were dedicated to seed germination and treatment. Germination is a process where the seeds transit from the state of dormancy to a seedling. Seed germination helps the farmers determine the germination rate and estimate the seeds' total germination when sown. If the germination is lesser than the desired number, farmers are suggested to increase the seed rate. The training exercises also include demonstrating how to germinate the seeds and check the potency of acquired seeds. Under the treatment of seeds, farmers are requested to use recommended fungicides and pesticides on the seeds to make them less vulnerable to diseases.

Under food and nutrition, the participating women farmers thoroughly enjoyed the in-depth discussions and training held by the nutrition department. Soy and soy-based products are known to be a good sources of protein. The awareness thus highlights the importance of including soy in everyday meals. Tofu, soy milk, soy flour, soy chunks are excellent sources of protein and iron and help diminish the ill effect of anaemia. Amongst the sources of complete amino protein, soybean stands at the top.



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SOY WEEK CELEBRATION

The partners and stakeholders also took a keen interest in the activities and helped the associated farmers learn the benefits of growing and consuming green leafy vegetables. The guidance and training give various reasons associated with nutrition-related ailments and how easily grown fresh sources like vegetables and soy can help rectify the problem. Challenges of malnutrition prevalent in the community targets children and women the most. Combining good agricultural practices and nutritional awareness would uplift the farming community from the grave dangers of diseases and insufficient livelihood.

Events like soy week promote awareness around the farming community and for the people from other sectors of society. It becomes an anchor and a reminder for everyone to prioritise the consumption of healthy food. The contribution by the ever hardworking community of farmers is also highlighted during such occasions. Good Farming – Good Food and its associated stakeholders are devoted to the cause of helping the farming community of Madhya Pradesh grow. Its efforts to uphold and encourage sustainable farming practices through events like Soy Week would continue in the future as well.

Event

SCIENTIFIC ADVISORY MEETING 2021



One can find a host of reasons to plan and justify the steps ahead from the previous analysis. It forms a model of good practice when agriculture and its functioning and progress is understood from the foregoing year's analysis. The Central Institute of Agricultural Engineering (CIAE), the higher seat of learning, research and development in the agricultural field, organised a virtual meeting on the 16th of June to discuss and present the annual report of the year 2020.

Such planning offers a plan of action for the future and helps to define objective and goals with clarity. The meeting thus also helped establish a plan of action and guidelines for the coming Kharif season.

Dr C R Mehta, who serves as the director of ICAR-CIAE, Bhopal, chaired the meeting where many other dignitaries from the field of agriculture participated in the meeting. He started the discussions with an in-depth review of the progress report for the year 2020. While discussing the different aspects of the report and explaining the progress so far, Dr Mehta also scrutinised the available data and its projection for the current year. Monsoon presents a number of opportunities for the farmers. A condensed examination of last year performance helped the participants understand the nooks and crannies of farmer's requirement in advance.

Dr Suresh Motwani, General Manager- Solidaridad, also joined the meeting on behalf of the organisation and as a representative coordinator for Good Farming – Good Food. During his address, Dr Motwani introduced the programme's objectives that align with the proposed guidelines and changes by the chairman of the meeting.





GOOD FARMING – GOOD FOOD

SCIENTIFIC ADVISORY MEETING 2021

He also shared how CIAE has been working with the programme and its partners to improve the farming system of Madhya Pradesh in five districts. The programme strives to raise a robust farming community by bringing innovative farming and production sustainability solutions and improving livelihood. It also promotes nutrition in the community with the help of a qualified professional team.

Suggestions and approval poured in from all directions. Mr Ranjit Chowdhary, serving director for IISS, suggested that Front Line Demonstrations (FLDs) and Cluster Front Line Demonstrations (CFLDs) should be based on the nutrition provided to the plants. Such demonstrations would help the farmers understand the role of soil-based and plant-based nutrition in soy farming and how it can save the crop during adverse conditions.

Dr Sujay from NABARD pointed to the requirement of technical support for the FPOs in the area. Farmer Producer Organisations will soon become the future of the agricultural economy. With the backing from such collective bodies, the farmers get a part to play from the stage of sowing to its marketing. Dr Sujay thus emphasised the establishment of more FPOs in the target districts. Dr Shelendra Singh, the District Development Manager from NABARD, also stressed that leading organisations like Krishi Vigyan Kendra could also come forwards and assist the farmers with the technical support required for FPOs.

From the Central Institute of Agricultural Engineering, Dr P S Tiwari from the production division gave his inputs on machinery and technologies suitable for soybean production. He added that soybean sowing is most effective when done with Broad Bed Furrow and Raised Bed and Furrow. The farmers from the district should be encouraged to adopt practices that are time tested and beneficial for them. On the other hand, Dr Sandeep Gangel added the necessity to raise awareness about crop residue management. Many farmers from the countryside still fail to make the best out of such residue. Its application in making compost or as fodder for the animals is far more beneficial than burning it at the spot. Dr Puneet Chandra, a senior scientist from CIAE, requested KVK to promote the health benefits of soybean throughout the village level.

Dr Deepak Sigh, who heads the KVK, assured his assistance in promoting CIAE approved technologies in the coming season. With the help of various actively participating civil societies like Solidaridad, Dr Deepak promised to reach out to the farmers with modern and improved production techniques and provide the farmers with a pathway to increase their income.

Deferring from a monoculture approach, Dr Walia suggested that Integrated Farming Systems should be encouraged for exhibition and learning in places like KVK. Assuring more development, Dr Mehta said that CIAE would be obliged to take ahead the suggestions and discussions held in the meeting. His assurance was also towards implementing sustainable farming, developing IFS models, the extension of technologies, and food processing for the agricultural community through its various divisions.

The scientific advisory meetings are held to bring together the leading minds from the field of agriculture together for a common consensus on viable agricultural planning. Solidaridad strives to achieve the desired goals of our nation's top organisations and work hand in hand with such bodies to uplift the farming of Madhya Pradesh.

FPO Update

MEETING OF BODS/MEMBERS WITH IRMA TEAM

Farmer Producer Organization has the capability to offer innumerable benefits to the farmers of India. In the context of smallholder agriculture in India, the potential spreads across a wide array of agricultural solutions. Farmer Producer organization can be defined as an involvement-based organization or a collection of many such organizations with elected representatives accountable to their representatives.



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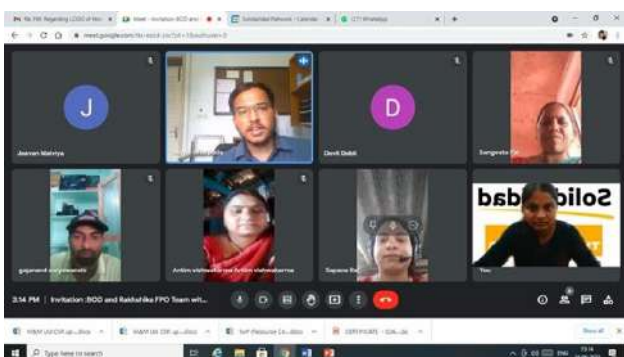
GOOD FARMING – GOOD FOOD

MEETING OF BODS/MEMBERS WITH IRMA TEAM

It can be viewed as a hybrid of private companies and cooperative societies working in the sphere of collective agricultural improvement.

The robust institutional framework of FPOs can uphold agricultural productivity scenario and promote sustainable agriculture. FPOs also helps in rebinding the fragmented and unorganized farming sector, especially in cases where farmers with marginal landholdings face various issues relating to credit, market access, and technology adoption. By organizing themselves into FPOs, the smallholder farmers stand to reap the benefits of open market economy and collective bargaining and serve the larger purpose of poverty reduction and farmer's/rural sector's capacity building.

The project and its partners encourage FPOs and assist farmers in materializing their resources and emerge as FPOs in their areas. In June, six meeting were organized for the Board of Directors (BOD) Bhopal district of Madhya Pradesh, separately with all BODs, member at ground level as well as through virtual platform.



capital, existing commodity and future plan. The session also elaborated on the necessity to business plan for sustainability.

In online meeting , addressed by Mr. Mayur Barpoda as expert from IRMA deliberated on present status of FPOs operation and need to further develop business plan for FPOs. BODs of Ojas Kisan Producer Company, Utthan Kisan Producer Company, and Rakshika Mahila Kisan Producer company took part in the meetings, which elaborated on characteristics of a good producer organization. The sessions discussed key topics like process adopted in forming FPOs, their working and role and responsibility, share capital,

Partner's Broadcast

SESSION ON ECO SYSTEM RESTORATION (WORLD ENVIRONMENT DAY)

Agriculture has impacted the world in many ways. With the advent of farming, we have seen civilisations prosper, inventions come to existence, population grow, and modernisation spread. But with this fast-paced progress, we have forgotten our duty towards nature and its conservation. Advancement in technology and population growth has exhausted the natural resources, which require some time to replenish. Environmental pollution is thus turning out to be a severe challenge for the government and the public. Therefore, United Nations celebrates 5th June as World Environment Day to help raise awareness about saving and Nurturing our environment. This global awareness move touches almost every existing sector that affects the environment somehow or the other.

Good Farming – Good Food also encourages its associated farming community of Madhya Pradesh to adopt sustainable means of farming to help conserve the environment and its non-renewable resources. It strives to educate people and engage them in practices that would allow the farming community and nature to grow simultaneously. In an attempt to reach out to the farming community, Solidaridad organised a mega webinar where all the from its associated project gathered in unison to inform the farmers and each other about the necessity to conserve our fast depleting ecosystem.



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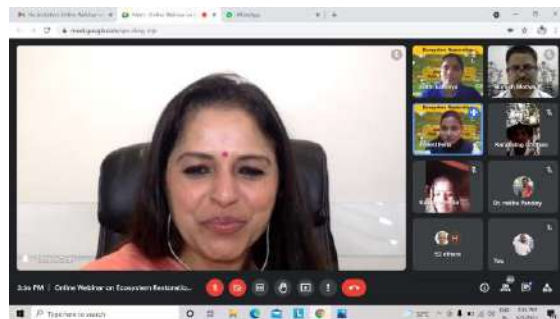




GOOD FARMING – GOOD FOOD

SESSION ON ECO SYSTEM RESTORATION (WORLD ENVIRONMENT DAY)

The session titled “Ecosystem Restoration” saw eminent guest speakers address the participants with their astute knowledge and understanding. Dr Suresh Motwani, General Manager for Solidaridad, opened the session and introduced the participants to the honorary stakeholders. Following a warm welcome, Mr Nilay Ranjan, who heads the Corporate Social Responsibility-Vodafone Idea Foundation, provided the participants with a detailed overview of their Smart Agri Project, which is implemented by Solidaridad in five districts of Madhya Pradesh. Smart Agri Project is established to elevate the rural farming community by new and improved farming techniques based on IoT solutions like- weather stations, Eco D3 and soil probe.



After a comprehensive input, the session was carried forward by **Dr Rekha Pandey from MPSRLM**. Serving as the District Project Manager for MPSRLM, Dr Rekha has tirelessly worked hand in hand with Good Farming – Good Food to uplift the employment and livelihood status of the rural community. Under her address, Dr Rekha gave the participating farmers a brief prologue to the nutrition status of the state. According to her, Nutrition Gardens can help overcome the trudging challenges of malnutrition prevalent in the farming community.

explained how a comprehensive diet derived from such intervention could completely change the face of nutrition in the state. Joining the other dignitaries were Mr Waman Kulkarni, Manager for CSR- Mahindra and Mahindra. Mahindra and Mahindra has partnered with Solidaridad to enable their Farmer Support Programme for Sustainable Agriculture and Livelihood in the target districts of Madhya Pradesh. Under his address, Mr Waman explained the importance of conserving soil and water, a few of the essential farming components. Soil is a thin layer of organic and inorganic material vital for plants growth. High water flow causes the fertile soil to flow away from the target farming areas. Therefore, watershed and soil management takes a central place in the project helmed by Mahindra and Mahindra.

Similarly, from **East-West Seed, Mr Shawan Ali** presented the participating farmers with the benefits of organic fertilisers and natural pest control methods. This, in turn, would promote an eco-friendly farming system that is beneficial not just for the environment but also for the people. Mr Anil Thakur from Vippy Industries Ltd. introduced the participants to their Samriddh Kheti Program, promoting sustainable and eco-friendly agriculture practices in the target districts. The programme has helped countless farmers gain priceless knowledge on good agriculture practices and improve their overall farming system.



Dr Bhavna Shah, Regional Representative of Malaysian Palm Oil Council (MPOC) for India and Sri Lanka, shared interesting facts and figures on palm oil and its importance as a prime source of food oil for many countries. Oil Palm is the most efficient oil-bearing crop, which requires far less land when compared to other oilseed crops. It makes palm one of the sustainable and also the most used oil in the world. After her address, Mr Dinesh Kumar Dwivedi expounded on the importance of plantation and how it can help in reducing soil erosion.



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SESSION ON ECO SYSTEM RESTORATION (WORLD ENVIRONMENT DAY)

He also told participants how plantations could help in promoting an eco-friendly environment for future generations.

The awareness around the environment and conservation of the ecosystem needs a constant push from both government and private sectors. The message has to reach all levels of society through a collective effort of the two. With programmes like Good Farming – Good Food, the collaborative enterprise of private and public structure would undoubtedly prove beneficial for the environment and farming communities.

Nutrition Bulletin

PRESCRIBED SOY RECIPE FOR THE MONTH

Tofu in Gravy

Ingredients

- Tofu – 150 Grams
- Tomatoes – 70 Grams
- Onion – 120 Grams
- Garlic Cloves – 5 (5 Grams)
- Green Chilies – 2
- Vegetable Oil – 1 laddle
- Coriander – 1 table spoon
- Coriander – 1 tea spoon
- Mustard Seeds and Cumin – ½ tea spoon
- Turmeric Powder – ½ tea spoon
- Chili Powder – ¼ tea spoon
- Lemon Juice – As per one's liking
- Salt – AS per one's requirement



Method

1. Ground onion, garlic, and green chilies into a fine paste
2. Ground tomatoes into a fine paste separately.
3. After heating the oil in a pan, add mustard seeds and cumin. Wait for the mustards seeds to pop and cumin to turn golden brown.
4. Add onion, garlic and chilies paste and sauté the mixture till it turns golden brown.
5. Add tomato puree and sauté the mixture till its oil starts to separate.



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6. Add the tofu, cut in even sized pieces.
7. Mix some water and salt to the content and let the gravy cook by covering the pan with a lid.
8. Once ready, add lemon juice according to one's liking.

Ingredients	Grams	Protein (Gram)	Iron (M.Gram)
Tofu	175	75.3	18.2
Tomatoes	70	1.33	1.26
Onions	120	2.16	1.44
Total	365	80.6	22.34