

# Newsletter

**GOOD FARMING – GOOD FOOD**



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**Soyabean flour Laddus**

## Good Farming – Good Food

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



**FROM THE PEN OF PROGRAMME CORDINATOR**

Dear Readers,

Madhya Pradesh has received below normal rainfall from June to July 1<sup>st</sup> week due to a break in the monsoon activity. Monsoon had hit in Madhya Pradesh on June 10 seven days before its normal arrival date. The sowing operations in most parts of the programme area was supposed to be completed by first week of July. This year the Monsoon played truant as there was long dry spell in

between second week of June to second week of July. This caused immense hardship for the farmers who had taken up sowing of soybean from 15th June onwards. 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 minimize 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 training that helps prepare the fields. This month, we moved made efforts to capacitate farmers with climate smart practices ,organized on field and off field advisory and meeting , provided farmers with quality agri inputs to undertake FLD . The initiation of weekly series of Krishi Choupal(on line training platform) by our subject expert has created a wave of awareness and sensitization among the farmers which has been profoundly appreciated by the farmers , ground team and entrepreneurs. Free exchange of information, experiences and difficulties has made it the most sought after platform by the farmers and we hope it would be bridge the information gap to a large extent move 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 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**

# Ground Activities

**COPING WITH RAINFALL: DRY SPELL MITIGATION**

After a prolonged dry stretch of monsoon, many standing kharif crops, including soybean, have started to dry up across the project district. Bereft of the monsoon rain, soybean plants have started wilting.

The season saw a prolonged dry spell after having received initial Monsoon for almost a month across the five district coupled with hot and humid condition, prevail across the project district. As farmers were distressed to see the cracks developing in soil and seedling failing to emerge out due to soil crust and therefore causing less crop establishment.



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In places like Agar, the dry spell led to late sowing up to second week of July. In such a situation, expert advice was of much relief to the farmers. Under the Good Farming – Good Food programme, Solidaridad and its partners associated with the farmers from five districts of Madhya Pradesh for coping with the rainfall variability situation. The initial monsoon receipt in 1st week of June prompted farmers to take up early sowing but subsequent dry spell for a month led to wilting of crop at seedling stage in some of the target locations. Having realized the impending crop situation expert advice from Solidaridad were given forthwith through different communication channel i.e mobile message, audio, online webinar, on field support and FFS meeting. Farmers were advised to go for increased the seed rate by over one and quarter times and also reduce the inter row space to 30 cm. Advisory was also given to farmers to undertake inter culture operation like Dora-Khulfa 10-12 DAS (Days After Sowing). It helps reduce weed (narrow and broad leaf) infestation and allow its incorporation with in the soil. Further more, opening up of inter row in between the crop rows helps provide residual soil moisture to the root zone of the crop and help endure the dry spell. The farmers having adopted BBF method or having left one row after every sixth or seventh row were in better footing as the crop was able to draw moisture from the conserved soil moisture in the furrow. The unpredictability of monsoon, its skewed distribution and prolong dry spell is now being seen as associated with growing effect of climate change and necessity to develop coping mechanism to adapt and mitigate the effect is need of the hour for the farmers.

The Third week of July was also witnessed with good monsoon shower on continued basis for four to five days. It leads to water stagnation in field, humidity and emergence of pest and disease problems. Both these conditions are harmful for the crop. Farmers were advised to ensure excess water is drain out from the field through furrow line and go for post emergence weedicide application and also light inter-cultural operation to minimize weed infestation.

## ONLINE SESSIONS

### TRAINING ON INTIGRATED WEED MANAGEMENT

Weed management is essential for any current system of agricultural production. 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.



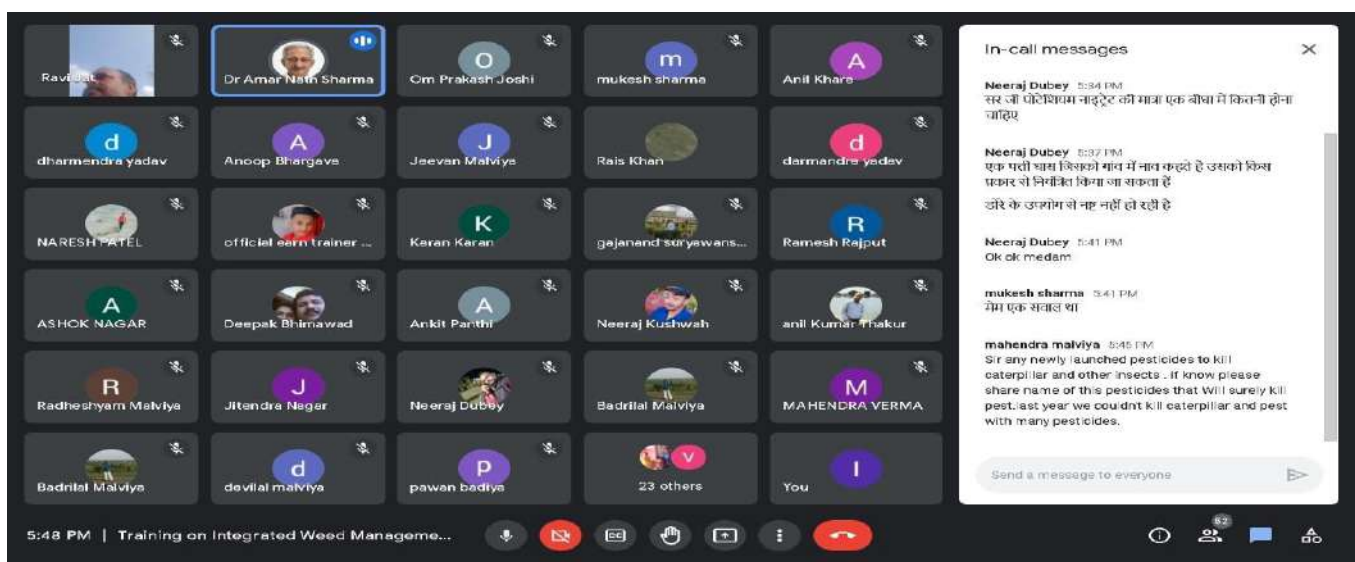
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## TRAINING ON INTEGRATED WEED MANAGEMENT

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.



It also involve reincorporation of uprooted weed back in to soil in between crop rows ,reduce incidence of pest , help conserve moisture and enrich soil fertility . besides farmers were advised to strategize their weed control by integrating cultural , mechanical and chemical method in such a way that it reduce cost and help achieve effective control . pre emergence ,and post sowing weedicide was advised to be adopted along with Dora-Khulfa. For better yield it is essential to have minimal crop weed competition specially at critical stages i.e 20 and 40 DAS.

Weed control is a practice of great importance for obtaining high soybean yields. Weed species is a serious problem for the soybean crops and its control is needed especially in infested sides. Therefore, weed management is an integral part of soybean production.

Under the programme Good Farming – Good Food, Solidaridad and its partners organise multiple training sessions for the farmers from all project districts of Madhya Pradesh in month of July. The training sessions are themed according to the crop calendar and crop requirements. The training was divided in to six topics named as Pre Sowing Practices which involve Land preparation, FYM application, soil testing , selection of seed, germination test and seed treatment. It is followed by Sowing Practices which talk about BBF or FIRB method. The other topics taken up during the training sessions are weed management ,INM and IPM. With the arrival of the Kharif season, farmers require a solid and reliable start. The sessions were organized as per the calendar of activities. In the beginning of July sowing in most of the districts were almost complete and the crop was almost 10-15 days old. This is critical for crop weed competition and therefore, 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, a training programme to enhance the learning and understanding of farmers regarding integrated weed management was held on 3<sup>rd</sup> July. Notable and renowned subject specialist Dr Amar Nath Sharma helmed the educational exercises through an established communication channel for more than 73 farmers.



The session began with a brief background on types of weed infesting soybean, losses caused in terms of yield and quality of produce. Weed impacts soybean production in many ways. Almost 50 per cent of loss is seen in total agricultural production due to weed infestation. Weeds compete with crop for sunlight, Soil moisture, nutrients, space etc. For obtaining a good yield Soybean requires a weed free condition up to 35 to 40 days. 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.

Disregarding the high cost, weed might be controlled in soybean crop using good management practices of all available methods, combining them in an integrated weed management (IWM). Crop rotation is a rather efficient method, since it allows an easy control of the most obnoxious weeds. In order to achieve success on crop rotation, weeds must be managed throughout the growing soybean season. Weed Control at early stage is seen to be much effective than later stage. Hence pre sowing, pre emergence and post sowing methods of control was much emphasized by the expert. The control should be integrated weed cultural and mechanical measures before resorting to chemical measures.

Despite efforts on weed control in soybeans, the benefits of IWM based on preventive and cultural controls will always be fundamental to the maintenance of monocultures. However, it appears that much of what is discussed about IWM is slightly practical, with corrective measures mostly.

Dr Amar Nath Sharma is presenting

Press Esc to exit full screen

### कुछ असरदार खरपतवारनाशक

| समय                           | रासायनिक नाम               | कुछ व्यापारिक नाम  | मात्रा प्रति हेक्टे. |
|-------------------------------|----------------------------|--------------------|----------------------|
| बोवनी से पूर्व                | पेंडीमिथालिन + इमाज़ेथापिर | वेलर, परसूट प्लस   | 2.5 से 3 ली.         |
| समय                           | रासायनिक नाम               | कुछ प्रतिष्ठित नाम | मात्रा प्रति हेक्टे. |
| बोवनी के बाद, अंकुरण से पूर्व | डाईक्लोसुलम                | स्ट्रॉंगआर्म       | 26 ग्राम             |
|                               | सल्फनट्राज़ोन              | अथॉरिटी            | 750 मि.ली.           |
|                               | सल्फनट्राज़ोन + क्लोमाज़ोन | अथॉरिटी नेक्स्ट    | 1250 मि.ली.          |
|                               | पायरोक्सासल्फान            | अवकिरा             | 150 ग्राम            |
|                               | पेंडीमिथालिन               | पेंडसिस सुपर       | 1.5 ली.              |

5:21 PM | Training on Integrated Pest Management

Participants: Dr. Amar Nath Sharma, Lakshminchandra Sela..., Vinod Bhimawad, Ashok Ahirwar, VISHAL MEENA, Tula Ram

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 authentic 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 well decomposed Farm Yard Manure (FYM) with no trace of weed would help prevent the growth of weeds during the crop growth phase.



**TRAINING ON INTIGRATED WEED MANAGEMENT**

Effective weed management is very important to maintain agricultural productivity. The importance of weed management to successful farming systems is demonstrated by the fact that herbicides account for the large majority of agro chemicals used in agriculture, eclipsing pesticide used for all other major pest groups.

The goals of IWM range from maximizing profit margins to safeguarding natural resources and minimizing the negative impact of weed control practices on the environment

Farmers are also suggested to perform weed removal by interculture operation . 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. A range of herbicides can be applied before and after sowing. Farmers were briefed about a combination of effective weedicides like Pendimethalin + Imazethapyr etc with its recommended dose.

Sustainable and successful farming would ensure both the growth of the farming community and the country's food security. With the planned interventions by Solidaridad, the farmers of Madhya Pradesh are expected to gain improved results in farming and earn a better livelihood. The success and sustainability of our weed management systems shapes the success and sustainability of agriculture as a whole.

**ONLINE SESSIONS****TRAINING ON INTIGRATED PEST MANAGEMENT**

Good Agricultural Practices  
for  
Sustainable Soybean Farming System

## Integrated Pest Management

*(Online training session organized by Soli VI Resource Centre Bhopal)*



**Date:-10<sup>th</sup> July, 2021(Saturday)**  
**Time:-5:00 to 6:30 PM**

**Topics**

- ❖ Pest Management.
- ❖ Uses of Pheroman trap and yellow sheet.
- ❖ Chemical and Biological control

**How to Join ?**  
Click on the link below after installing Google Meet  
<https://meet.google.com/iqv-xcqv-fzs>  
**For More Information Please Contact**  
Namrita Bhanweria – 9644195248  
Anil Khare – 7089501837

Soybean is considered one of the most important Kharif crops for our farmers in intervened district and also in the State at large. The crop is cultivated in millions of hectares worldwide, the management of soybean pests usually requires large amounts of chemicals. However, a key component to meet the increasing demand for edible oil due to the rapidly growing global population is protecting crops from pests while maintaining environmental quality through ecologically and economically sound integrated pest management (IPM) practices. Not only can IPM result in more profitable agriculture due to the reduction of pest control costs but also assures equitable, secure, sufficient, and stable flows of both food and ecosystem services. Despite those ecological and economic benefits, the vast areas of cultivated soybean as well as the convenience of spraying insecticides are encouraging the adoption of prophylactic pest control as a relatively inexpensive safeguard compared to IPM practices. The expert emphasised on adoption of IPM method which includes cultural, Mechanical, biological and Chemical as a last resort.





Each of these methods is based on basic principle to keep the pest problem below Thresh hold (TL)level as the complete control is not achievable and neither desirable. The expert advised the farmers to adopt preventive methods such us seed treatment, cultural methods such as deep summer ploughing, selection of healthy and resistant variety, maintaining clean cultivation, mulching, spacing and recommended seed rate. Mechanical measures such as use of Pheoromone traps, yellow sticky card, bird perches are much useful in control of sucking pests. Farmers were advised to have regular monitoring of the crop, follow the advisory and go for initial control if the pest problem is visible. Biological methods also hold great promise for pest control like use of NPV, bio pesticides, botanicals etc. The training helped farmers grasp the basics of IPM and its practical advantage over other methods of pest management. The educational exercises through an established communication channel for more than 81 farmers.

Online sessions like these provide the participants to clear their doubts and raise queries and share experiences with fellow farmers. The webinar involved planary session wherein farmers were able to raise their queries, seek solution for the problem in field and share their experiences on adoption of GAP. The session helped ignite farmers' interest in adoption of Integrated pest management for their crops. Solidaridad, along with its partners, strives to bring the farming community close to sound and sustainable agricultural practices through effective online communication channels. Overall, this forum highlights the importance of IPM for agricultural sustainability including ecological and financial benefits.

## Ground Activities

### PHEROMONE TRAPS AND YELLOW STRIP TRAP TO BE USED FOR PEST CONTROL

Under the programme Good Farming – Good Food, Solidaridad and its partners are extensively contributing at ground level with numerous awareness session on good agriculture practices. The month of July was marked by having an intensive and extensive approach of trainings and demonstration at the cluster and village level in all the five target districts Farmers in project district can look forward to reducing their dependence on toxic chemicals for pest control and therefore to encourage the adoption of this, Solidaridad has introduced pheromone traps and yellow sticky card in the project district. The technology uses the sex pheromones of a particular pest against itself.



Pheromones are hormones released by female insects and pests to attract the opposite sex for mating. The hormone is specific to each species or group. Pheromone traps use lures loaded with a synthetic version of the pheromone scent for the target insect. farmers were advised to install six traps in every one acre to trap Spodoptera and Helicoverpa insect which causes significant damage to the soybean. It also act as surveillance and help farmers to schedule its pesticide application on the basis of intensity and number of insect in unit area.



**PHEROMONE TRAPS AND YELLOW STRIP TRAP TO BE USED FOR PEST CONTROL**

Pheromone technology has potential to add value in long-term pest management of many economically important pests. Pheromone technology is cost effective and applicable for different crops in scale. Yellow sticky traps significantly suppressed the population increase of adult and immature whiteflies.



Yellow sticky traps are a commonly used method for population monitoring of many sucking pests. farmers were advised to install six traps in every one acre.

The pest get attracted to yellow colour and get stuck the moment they touch the card. It helps farmers to put a check on diseases caused and spread by sucking pest and schedule its control measures in time at a much nominal cost.

## Ground Activities

### FRONT LINE DEMONSTRATION - BEST PRACTICES FOR ON FORM DEMOSTRATION ACTIVITIES

The soybean is a crop of global importance and one of the most frequently cultivated crops worldwide. Since, this is the most important oilseed crop in central region of the India with potentials of supplementing edible oil and increasing earnings through export of soy meal, it needs special focus on improving national productivity. In view of the positive impact of frontline demonstrations in increasing the seed yield of soybean for upcoming month, Solidaridad and esteemed partners established 225 frontline demonstrations encompassing improved technological interventions in all project districts of Madhya Pradesh on soybean productivity and economic viability. Front Line Demonstration of Soybean has been undertaken with variety like JS 2034 , JS 2069 , RVS 2001-04 and also JS 9560



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Farmers were given on field support to undertake sowing with BBF method to avert moisture stress and crop submergence situation. All the demonstrations received tailored recommended fertilizer dose based on soil test values. Role of balanced fertilization in elevating the yield of soybean has amply been demonstrated by our lead farmers. Frontline demonstration encompassing improved technology including improved varieties, are effective in convincing farmers to adopt proven technology and switch over to improved varieties. The planting of soybean on changed land configuration (BBF and Ridges and Furrow system) has added advantage over flat land planting by way of mitigating adverse effect of moisture stress and thereby improving the yield levels of soybean. The technological interventions imparted were use of improved variety, seed treatment, seed inoculation, recommended spacing, balanced nutrient incorporation, weed management and plant protection measures.

With Good Farming – Good Food, thousands of farmers have benefited from guidance by experts under the programme. Improvement in performance of crop and monetary benefit can be harnessed by the farming community of Madhya Pradesh in the future by adaptation of improved technology and varieties.

## Ground Activities

### VERMICOMPOSTING -COMPOST BECAUSE CHANGE STARTS FROM THE GROUND UP

Vermicompost is known to be the world's best fertilizer. Vermicomposting is a method of preparing enriched compost with the use of earthworms. It is one of the easiest methods to recycle agricultural wastes and to produce quality compost. Earthworms consume biomass and excrete it in digested form called worm casts. Worm casts are popularly called as Black gold. The casts are rich in nutrients, growth promoting substances, beneficial soil micro flora and having properties of inhibiting pathogenic microbes. Vermicompost is stable, fine granular organic manure, which enriches soil quality by improving its physicochemical and biological properties. It is highly useful in raising seedlings and for crop production. Vermicompost is becoming popular as a major component of organic farming system. Using Vermicompost can fulfill the requirements for organically grown products.



This year, Solidaridad provided some of the critical inputs which were much needed to show case the farmers about its benefits like vermicomposting bag, waste decomposer and bio compost culture, earthworms etc. to ensure composting in proper way by way of technical support and on field demo. Earthworm 2 Kg/unit had been given to each composting unit and farmers had been assisted in release of the same in the compost unit. It will have a container to collect vermiwash which has



**VERMICOMPOSTING - COMPOST BECAUSE CHANGE STARTS FROM THE GROUND UP**

has multiple application as a bio pesticide, manure and soil conditioner. Each unit can generate a enriched compost 15-20 ql of per cycle within 40 to 45 days interval. This will have ripple effect as more farmers will adopt it by seeing its practical advantage for soil health and fertility.

SDGP and its esteemed partners have organized numerous demonstration sessions at ground level for the farmers of Madhya Pradesh in hopes of benefits the environment by reducing the need for chemical fertilizers and decreasing the amount of waste going to landfills in project area to the farming community.

# NUTRITION CHOUPAL

The Nutrition Choupal, an online session on health and nutrition continued in the month of July. The event is observing an overwhelming response from the targeted community as it provides expert knowledge and information at the door-step. The Nutrition Choupal has enabled the farmers to directly interact with health and nutrition experts to get the consultations/solution on their health and nutrition related issues and questions thereby strengthening community and expert linkages.

The Nutrition Choupal is largely accepted by the targeted community i.e. rural women as they acquire first-hand knowledge regarding various information on health and nutrition especially on the importance of soy food and nutritious vegetables. Many of the motivated women has started adopting the inclusion of soy food in their daily diet as well as they have become aware about the importance of balanced diet and nutrition. This would contribute towards the improved dietary diversity score of targeted households.



# NUTRITION BULLETIN

## AWARENESS SESSION ON IMPORTANCE OF SOY FOOD AND VEGETABLES FOR PREVENTION OF SEASONAL DISEASES

India typically experiences its annual Monsoons between the months of July to September. As refreshing as it may feel, the onset of the rains brings with them a host of diseases and infections that can pose a serious range of health threats. The good news, however, is that staying healthy during these months can be as simple as taking the right precautionary measures at the right time. Many of these monsoon diseases remain undiagnosed until they affect a major health aspect negatively. Early diagnosis and a few basic preventive and hygiene measures can keep stay safe and help reduce susceptibility during this season.

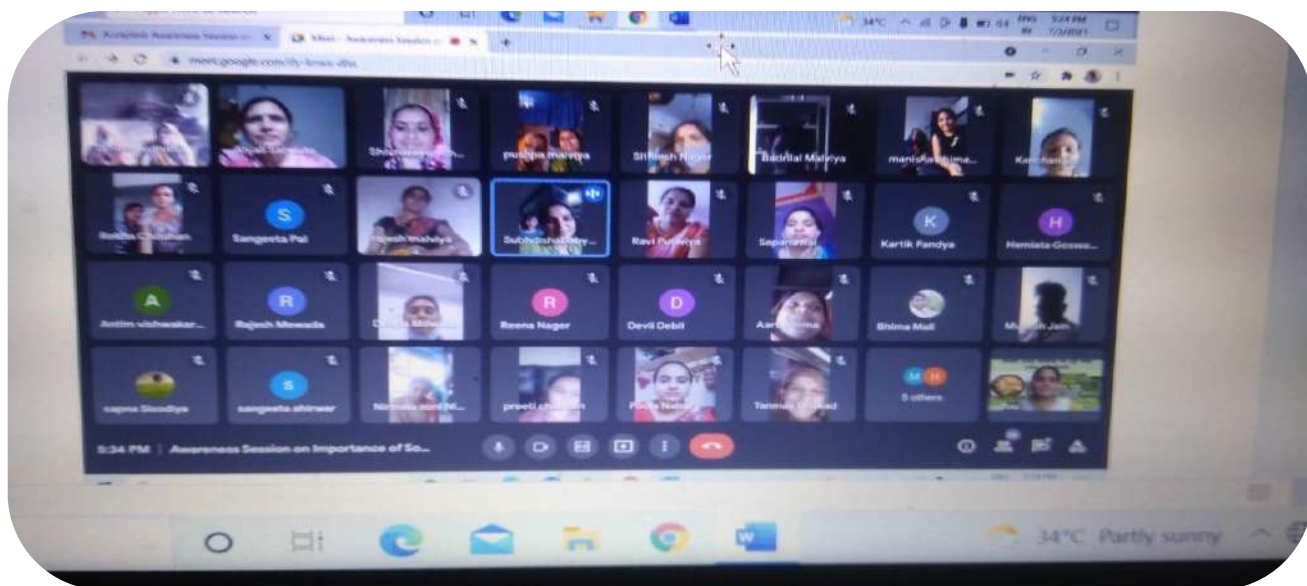


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**IMPORTANCE OF SOY FOOD AND VEGETABLES FOR PREVENTION OF SEASONAL DISEASES**

The most common diseases during monsoons are transmitted through mosquitoes like-malaria, dengue, chikungunya, from water like - Typhoid, cholera, Jaundice, Gastro intestine infection etc and from air like Cold/flu and influenza.



SOLIDARIDAD, along with its partners, have organised Nutrition Chaupal for the woman farmer, nutri sakhies and Para workers for all project district from Madhya Pradesh. The awareness and training sessions are drawn around the redressal of seasonal diseases which is common in rural areas of the country. Under the session, a reputed nutritional instructor -Mrs Anjali Sarvate from middle level training centre Indore, gave the participants a detailed account of cause and impact on health and care and dietary practices to be adopted before, during and after the disease infection. Emphasis was given on safe WASH (Water, Sanitation & Hygiene) practices, role of nutritional diet to boost immunity specially among vulnerable groups like children (0-6 years and above), lactating and expecting mother. The session was participated by over 79 women. The women got the opportunity to raise several queries on health and nutrition and shared their problems which was satisfactorily answered by the trainer. This also indicated the importance of such issues for the community and women in particular.

Human needs a wide range of nutrients to lead a healthy and active life. For providing these nutrients, good nutrition or proper intake of food in relation to the body's dietary needs is required. Poor nutrition can lead to reduced immunity, increased susceptibility to diseases and reduced productivity.

Nutrition is important for everyone. However, the requirement is different for every individual may it be an infant, growing child, pregnant women and elderly people.

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. Vegetables are important for human health because of their vitamins, minerals, phytochemical compounds, and dietary fibre content. Especially antioxidant vitamins (vitamin A, vitamin C, and vitamin E) and dietary fibre content have important roles in human health. Adequate vegetable consumption can be protective from seasonal diseases such, as well as reduce risk factors leading to diseases.

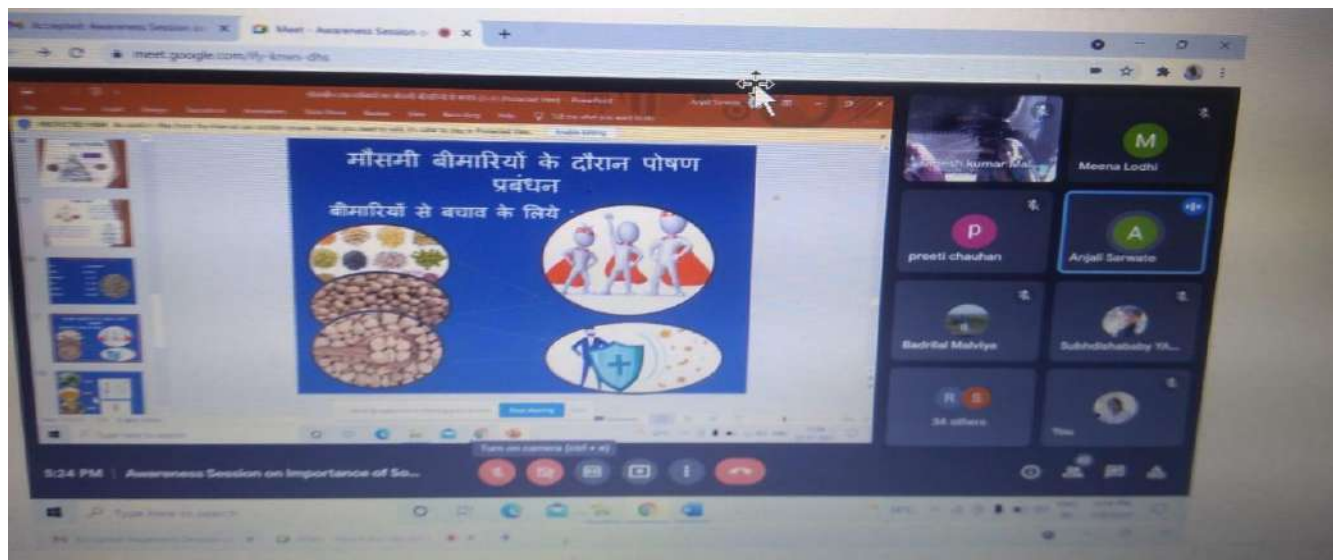


**IMPORTANCE OF SOY FOOD AND VEGETABLES FOR PREVENTION OF SEASONAL DISEASES**

Under the training session, the expert covered various facts related to seasonal diseases, reason of these diseases, symptoms and type of food required to prevent them from these diseases etc. Basic information was given about the soy, vegetables, preparation and cooking and their effects on health outcome in terms of physical and mental growth, boosting immunity and physiological functions of the body.

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 has rich nutritional value in terms of Highest Protein content, Iron, Vitamin and minerals and in way much cheaper source of Protein than Egg and Paneer. During such training exercises, farmers are also provided with some of the cooking methods to prepare different kind of soy added food items which is palatable for the people and much easy to adopt like Soy Milk, Soy Paneer, Soy snacks, Soy sprouts, Soy Halwa, Soy flour etc.

Solidaridad seeks to promote and deepen community ownership in the programme and thereby create collective community awareness on good agricultural practices (GAPs) 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. The training sessions are themed according to the time and requirements.

**NUTRITION BULLETIN****AWARENESS SESSION ON ROLE OF SOY FOOD AND VEGETABLE DURING PREGNANCY**

It's always important to eat a balanced diet – and it's even more important during pregnancy because food taken during remain only source of nutrition for baby for its growth and development. However, many women don't get enough iron, folate, calcium, vitamin D, or protein. So, during course of pregnancy, it is absolutely essential for them to have increased and balanced nutritional foods in their daily diet eat.

Most women can meet their increased needs with a healthy diet that includes plenty of fruits, vegetables, whole grains, and proteins. Maintaining good nutrition and a healthy diet during pregnancy is critical for the health of the mother and her child in womb. Nutrition education and counselling is a widely used strategy to improve the nutritional status of women during pregnancy. The strategy focuses primarily on promoting a healthy diet by increasing the diversity and amount of foods consumed/promoting adequate weight gain through sufficient and balanced protein and energy intake/promoting consistent and continued use of micronutrient supplements, food supplements or fortified foods.



## AWARENESS SESSION ON ROLE OF SOY FOOD AND VEGETABLE DURING PREGNANCY

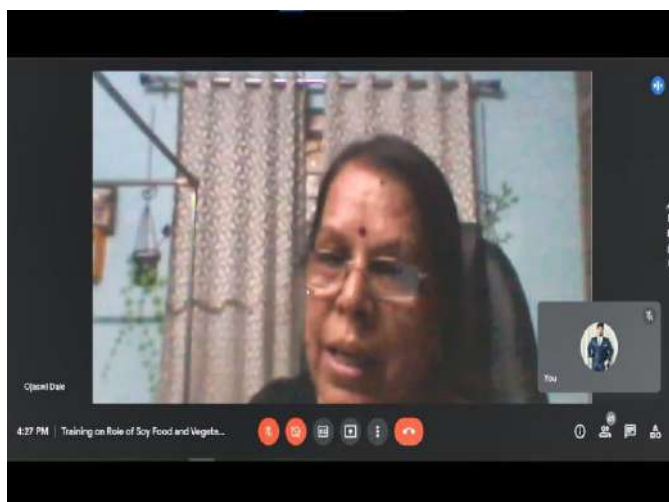
Available evidence suggests that nutrition education and counselling may support optimal gestational weight gain (i.e. neither insufficient nor excessive), reduce the risk of anaemia in late pregnancy, increase birth weight, and lower the risk of preterm delivery. Counselling may be more effective in undernourished populations when women are also provided with nutrition support such as food or micronutrient supplements where needed.

Solidaridad and its partners organised multiple training sessions for the women, nutri sakhies and paraworkers from all project districts of Madhya Pradesh in month of July.

The training sessions are themed according to nutrition requirements. A training programme to enhance the learning and understanding of women regarding awareness on role of soy food and vegetables during pregnancy was organised on 17<sup>th</sup> July. Notable and renowned subject specialist Dr Kirti Dale-Gynaecologist from Arogyam Government Hospital, Bhopal, helmed the educational exercises through an established communication channel for more than 80 women.

During the training session, interested women were briefed about importance of soy and vegetable during pregnancy. A healthy diet during pregnancy contains adequate energy, protein, vitamins and minerals, obtained through the consumption of a variety of soy foods, including green vegetables and fruit. As, Soy food can be a healthy part of pregnancy diet. Soy food is highly nutritious, and it is power-packed with iron, magnesium, fibre, omega- 3 fatty acids, vitamin K, manganese, phosphorus, and copper. Along with these, Soybean is also a good source of flavonoids and iso flavonoids, phytoalexins, phytosterols, phenolic acids, proteins, saponins, and peptides. Similarly green vegetables benefits include fiber, vitamin C, vitamin K, vitamin A, calcium, iron, folate, and potassium.

Expert also shared the pregnancy stages and recommended diet during various stages, as is divided into 3 trimesters. The word trimester means “3 months.” The first trimester takes place from conception through week 14. The second trimester is from week 14 through week 28. And the third trimester is from week 28 through labor and delivery. Of course, delivery varies a lot, but it averages at week 40.



**AWARENESS SESSION ON ROLE OF SOY FOOD AND VEGETABLE DURING PREGNANCY**

Pregnant women need to ensure that their diet provides enough nutrients and energy for the baby to develop and grow properly. They also need to make sure that her body is healthy enough to deal with the anatomical and physiological changes that are occurring in her body .

A plenary session was organised wherein the women showed interest to know about nutrition management during pregnancy. Solidaridad, along with its partners, strives to sensitize and create behaviour change in dietary practices for having healthy pregnancy. The expecting women must have balanced and nutritious diet – this involves the right balance of proteins, carbohydrates, and fats, and consuming a wide variety of plants like soy, vegetables.

**NUTRITION BULLETIN****CADRE OF TRAINED NUTRI-SAKHI READY FOR CREATING NUTRITION AND HEALTH AWARENESS**

These training and orientation programmes are held to improve and upgrade their awareness of key nutrition aspects and to increase one's capability and engagement through improved knowledge retention. This has helped a number of Nutri Sakhis to reach out to the women farmers with correct information. This would help to strengthen the health, hygiene and nutrition status of malnourished children and women who need such assistance the most. A number of families in the rural communities are found following imbalanced diet sans requisite nutritional value.

This has impeded the growth of children and the overall health of women, especially pregnant women. A protein-based diet with the richness of adequate vegetables has become an out-an-out necessity for such families. Much more perturbing is the current state of awareness within the community. Along with this basic nutritional training, the programme also initiated a ground-level study. Through household surveys, nutrition experts have discovered that many of the women fail to include the legume and vegetables grown on their farms in their daily diets. Such farm produce is explicitly kept for its commercial clearance. A part of their produce can be easily diverted towards the family to fulfil their daily nutritional needs, and Nutri Sakhis have unremittingly requested the farming families to adopt the approach. To bring diversity to one's meal, Nutri Sakhis are trained in disseminating various recipes that can be made from soy. Many of the farming communities have now started including Soy in their daily diet with a diverse range of options, especially through soy flour, nuggets and milk, all derived from soybeans.

Therefore, an extensive training and orientation programme under the nutrition banner becomes necessary to accomplish the programme's nutritional objectives.



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# NUTRITION BULLETIN

## ADOPTION OF SOY FOOD AND GREEN VEGETABLES IN HOUSEHOLD DIET

Soy and soy foods are common nutritional solutions for vegetarians, due to their high protein content and versatility in the production of meat analogues and milk substitutes. The characteristics of soy and soy foods, focusing on their nutrient content, including phytoestrogens and other bioactive substances that are noteworthy for vegetarians.

In the last decades, vegetarian diets have become more widespread among the population. The reasons for this choice are different and include mainly ethical, ecological and health aims.



Solidaridad, along with its partners, have organised numerous awareness session for the woman farmer, nutri sakhies and paraworkers for all project district from Madhya Pradesh.

Human needs a wide range of nutrients to lead a healthy and active life. for providing these nutrients, good nutrition or proper intake of food in relation to the body's dietary needs is required. Poor nutrition can lead to reduced immunity. increased susceptibility to diseases and reduced productivity.

Nutrition is important for everyone. However, the requirement is different for every individual may it be an infant, growing child, pregnant women and elderly people.

Mrs Sithilesh Nagar wife of Mr. Santosh Nagar, a 31-year-old farmer from the village of Bakaniya near Bhopal is rural entrepreneur under programme Good Farming – Good Food. She is one of active rural entrepreneur and participated in each awareness session. She herself with her family using various soy food and vegetable recipes, learn from nutrition expert and encourages others also.

“My children like the taste of various soy and vegetable recipes and I like it because of nutritional value.”Mrs. Nagar’s family consumed the green vegetable and soybean.



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# Ground Activities

## WOMEN SELF-HELP GROUP (SHG) FORMATION

Villages face numerous problems related to poverty, illiteracy, lack of skills, lack of formal credit etc. These problems cannot be tackled at an individual level and need collective efforts. Thus, SELF-HELP GROUPS (SHGs) SHG can become a vehicle of change for the poor and marginalized. SHG rely on the notion of “Self Help” to encourage self-employment and poverty alleviation. Self-Help Groups are informal associations of people who choose to come together to find ways to improve their living conditions. It can be defined as self-governed, peer-controlled information group of people with similar socio-economic background and having a desire to collectively perform common purpose.

In village Nandel of dewas district of Madhya Pradesh, 12 women initiated and formed a self-help group, named Vaishnavi Self-Help Group to empowers women and inculcates leadership skill among the members. Notably among and has a multiplier effect in improving women’s status in society as well as in the family leading to improvement in their socio-economic condition and also enhances their self-esteem.



# Ground Activities

## BUSINESS PLANNING AND ROBUST INSTITUTIONAL FRAMEWORK OF FARMERS PRODUCER ORGANIZATIONS (FPO)

Farmer Producer organization can be defined as farmers collective coming together for attainment of common goal It is collection of many such primary producer groups with elected representatives accountable to their members. 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.



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In the month of July, visit was organized in the Farmers producer organization's- sadbhavna FPO, Dharashakti FPO, Divasa FPO and sarthi FPO at ujjain and Dewas with IRMA'S Experts.

The sessions discussed key topics like process adopted in forming FPOs, their working and role and responsibility, share capital, existing commodity and future plan. The session also elaborated on the necessity to business plan for sustainability.

In the valedictory address, IRMA experts, urged the participants for working to make the farmers' life better by organizing them in FPOs.

He also regarded the FPOs to be the vehicle of prosperity for the rural India by facilitating the aggregation and collectivization and transferring the benefits to the farmers in the near future

All the aspects of FPOs, right from mobilization of farmers, FPO formation & registration as Producer Company and the aspects of Business Plan Development for FPOs, market research, marketing plan, etc., were discussed on meeting during the visit.



## PLANS

### REVIEW AND PLANNING MEETING



Solidaridad, organized the review and planning meeting in the month of July to identify tasks and activities, estimates resource requirements, assigns responsibility, schedules tasks, and manages risk and review the progress of the project, list out step for corrective action, set out performance indicators individual or team performance, and evaluates the project under Programme Good Farming – Good Food.

The team members deliberated on district quarterly plan as well as monthly plan during the meeting and shared relevant information regarding project outcome.

The meeting prioritized the projects to be reviewed, such that major concern is addressed. Each of the members were given opportunity to present their progress against assigned task and major accomplishment, project's status, Scope, Schedule of activity and Quality. They also discussed key issues or challenge that need strategic intervention.



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# Ground Activities

## FPO UPDATE –ESTABLISHMENT OF OFFICE CUM RESOURCE CENTERS

Good Farming – Good Food and its partners encourage FPOs and assist farmers in materializing their resources and emerge as self-sustaining FPOs in their areas. In July, many capacity building meets were organised for the Board of Directors (BOD) across the five districts of Madhya Pradesh.

An office cum resource centers have been established in all five district of Madhya Pradesh under Programme Good Farming – Good Food. Solidaridad has been providing technical and logistic support in all project district. In one of the project district Dewas, the members collectively discussed the business

opportunities for the FPOs like setting up of farm mechanization center, inputs and quality seeds production etc and initiated farm mechanization centers.



## QUALITY SOY SEED PRODUCTION BY FARMER PRODUCER ORGANIZATION

The availability of quality and high-yielding varieties of soy seeds is one of the key issues which affects the yield and income of farmers. The project good farming good food is promoting new and improved seeds and its multiplication with the engagement of FPOs. The multiplication of quality seeds would ensure sufficient availability of quality raw material for producing qualitative soy food products.

In one of the project district Agar, this year the Samarth FPC is planning to undertaken 6000 quintal of certified Soy seed production with over 191 registered farmers in over 388.3 ha area in Agar and Barod block of Agar.

In district Dewas, Diwasa agro farmer producer company procured 20 quintal onion seed from Maharashta @ Rs 850 per kg and sold off the seed @Rs 1050 per kg and made reasonable profit. Under the banner of Good Farming – Good Food, Solidaridad constantly provides support in the documentation and logistics like registration, messaging about procurement, MSP, weighing, storage in the target areas etc. Under the correct and astute guidance, many other FPOs are likely to come up soon. Good Farming – Good Food aspires to guide all budding FPOs into sustainable organizations.



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## Nutrition Bulletin

PRESCRIBED SOY RECIPE FOR THE MONTH

### Soyabean Flour Laddus

#### Ingredients

- Soybean flour - 250 grams
- Wheat flour – 250 grams
- Ghee or Oil – 200 grams
- Boora – 500 grams



#### Method

1. Sieve both the flour and keep it in the vessel.
2. Put ghee/oil in a pan and heat it. Put the flour in hot ghee/oil.
3. Cook on medium heat till the color of the flour turns brown. When a good aroma of roasting comes, turn off the gas and let the dough cool down.
4. When the dough remains slightly warm, then add Boora and cardamom. Mix all
5. Take a small amount of the mixture at a time (a handful), keep it in your hand and press with both the hands to make a round shape. Place the round laddus in a plate. Similarly make laddus of the remaining mixture. Prepare soya bean laddus and keep them in an air-tight container.
6. Eat 1 soyabean laddus every morning for breakfast, this will give you energy and they will look delicious too.
7. Laddus made from soybean can be stored and eaten for 1 month.



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