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ABSTRACT BOOK

National Multilingual Conference
on
Problems and Opportunities in Agriculture: In and After Covid-19

Organized by

Internal Quality Assurance Cell (IQAC)
Jaysingpur College, Jaysingpur

25th June 2020

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Jaysingpur College, Jaysingpur

Kolhapur- 416 101, Maharashtra, INDIA

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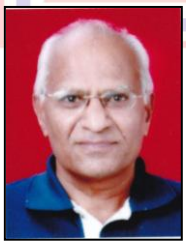

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Invited Talks

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Recourse Persons and their YouTube Video links

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Dr. Rajendra Kumbhar	**Principal,** Jaysingpur College, Jaysingpur	https://www.youtube.com/watch?v=hc_acs6Azds

Invited Talks

No.	Authors	Title
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Invited Talks		
1	Prof. Shrikrishna Mahajan	Labours and processing industries: In and after lockdown
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3	Mr. Raju Shetti	Problems in front of Farmers during lockdown
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List of Abstracts

PO–01 Waste utilization in fruits and vegetables and processing industries

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ABSTRACT

Fruits and vegetables are the most utilized commodities among all horticultural crops. They are consumed raw, minimally processed, as well as processed, due to their nutrients and health promoting compounds. Significant losses and waste in the fresh and processing industries are becoming a serious nutritional, economical, and environmental problem. The United Nations Food and Agriculture Organization (FAO) has estimated that losses and waste in fruits and vegetables are the highest among all types of foods and may reach up to 60%.The processing operations of fruits and vegetables produce significant wastes or by-products, which constitute about 25% to 30% of a whole commodity group. The waste is composed mainly of seed, skin, rind, and pomace, containing good sources of potentially valuable bioactive compounds, such as carotenoids, polyphenols, dietary fibres, vitamins, enzymes, and oils, among others. These phytochemicals can be utilized in different industries including the food industry, for the development of functional or enriched foods, the health industry for medicines and pharmaceuticals, and the textile industry, among others.

PO–02 Lockdown due to COVID-19 and its impact on Farmer, Agriculture

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ABSTRACT

India declared the first lockdown from the mid-march in the initial phase, further the lockdown becomes extended to stop the covid-19 spread. During these lockdown the positive, as well as negative impact, takes place on both farmer as well as in the agriculture field. Positive impact include most of young people attracted towards farming as no any job to do so people goes to farming. The negative impact include labour crisis to sowing of winter crop, decline in prices due to muted demand in domestic and overseas areas. Small and medium processing industry based on the agriculture field will be hit in hard and so several owners shut down industry processing which directly affecting the farmer as Raw material for industry provided by farmer so it generate Economic issue to farmers. To overcome economic issues Reserve bank of India announced measures that address "burden of debt servicing" due to corona virus. Food grains, fruits, Vegetables and other required essential material to people in the country during lockdown is big challenge in front of Government.

Key words: Lockdown, Impact, Economy, application, Covid-19

PO–03 Impact of Corona on Agricultural Economy

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ABSTRACT

The COVID-19 pandemic has brought about unprecedented impact on Indian economy. Its repercussion on agriculture is complicated and diversified across diverse compartments that shape the agricultural value chain. This impact will resonate across the larger economic landscape and will persist longer than a few months. The pandemic has created multifarious problems in agricultural segments due to unavailability of labour and inability to access markets for produce created by stranded transportations and non-operation of markets. Agriculture makes up 15 percent of India's gross domestic source of livelihood for more than half of the country's 1.3 billion population. The lockdown, restriction on labour mobility and volatility in stock markets is also having a huge impact on the global economy. There is ample evidence to aver that the pandemic caused by the COVID-19 disease has a far-reaching effect on agriculture and the food supply chain, largely impacting food demand and consequently food security, with a major impact on the most vulnerable sections of the country. While in well-endowed regions the agricultural operations are about to suffer, the hinterlands will be inundated with an excess supply of labourers, bringing about new challenges and opportunities. The present paper tends to analyse the various parameters of unavailability of labour and inability to access markets for produce along with scattered supply of food chains.

Key words: COVID-19, food supply chain, agriculture, market

PO–04 Certain possible solutions to solve the health problems of Farmers due to COVID-19

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ABSTRACT

COVID-19 changed the life of the entire world but the most affected community is a huge number of farmers. Generally in India farmers are going to work from one state to another state because of fewer opportunities in their native state. Usually, in real-time analysis, people are from less developed states like Bihar, Utter Pradesh, and many more states moving to more developed and industrial areas related to big cities like Mumbai, Delhi, Bengaluru, Chennai and many more cities to full fill their needs and to run the family. Due to unexpected COVID-19, most of the farmers were blocked in other states during the lockdown period as well as they had a long and very painful struggle as we have seen in newspapers, social media, and different media sources. Many of them have lost their lives because of COVID-19 and improper food and heavy crowed during moving towards their native place. After seeing this entire real-time scenario the main focus of this article is to contribute a few suggestions to help the farmer community to have good health and a comfortable life. First of all the state government needs to arrange the maximum number of job opportunities to avoid heavy shifting from one state to another state with the help of the central government for sure it is possible. Moving from one state to another state it should be a choice, not the mandatory habits. Apart from that regular health monitoring systems should be developed with advanced technologies like micro and nanoscience. Because of small in nature portability is very easy for these

kinds of devices. Wearable health monitoring devices should be also provided to the farmers to know about their health in time. Using MEMS technology early detection of diseases is possible so these kinds of high health monitoring systems should be utilized for continuous health checkups of farmers. If these kinds of technology will be improved than for sure it will help a very big community of our country.

Key words: COVID-19, Farmers, Health Monitoring, Micro and Nanoscience, MEMS.

PO–05 Impact of Lockdown on Small and Marginal Farmers in Tamil Nadu

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ABSTRACT

In India agriculture has been considered as the back-bone of our country. Around 70 per cent of the population is engaged in agriculture and 80 per cent of the population lives directly or indirectly on income derived from agriculture. One-third of national income comes from agriculture. The economic shock will likely be much more severe for India, for two reasons. First, pre-COVID-19, the economy was already slowing down, compounding existing problems of unemployment, low incomes, rural distress, malnutrition, and widespread inequality. Second, India's large informal sector is particularly vulnerable. The rabi crop stood ready for harvest in many fields when the COVID-19 crisis brought everything to a halt; this is also the time for harvest of plantation crops like pepper, coffee, banana. In the aftermath of the lockdown, harvest of the rabi crops has been delayed due to non-availability of labour, machinery (harvesters, threshers, tractors), transport facilities and restrictions on movement; farmers of perishable commodities like fruits, vegetables, and flowers in particular have been incurring losses. This is the peak flowering season when the demand is also high. Harvest of plantation crops in Kerala and Tamil Nadu has been similarly delayed, affecting the cash flow of farmers and farm labour. Agriculture labourers are not able to go to work due to lack of transport. Small dairy and poultry farmers engaged in contract farming in Tamil Nadu have faced a major loss with many private contract firms refusing to lift the produce.

PO–06 Desiccant assisted dehumidification and cooling – An eco-friendly approach

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ABSTRACT

Research conducted earlier by many investigators in field of HVAC led to the conclusion that the proportion of energy used by the air-conditioning systems in the household and commercial buildings now accounts for nearly 48%. Air-conditioning systems today account for almost 32% of the total energy consumption of the world. Rising standards of living, technological advancement and increasing population have led to a significant increase in per capita energy demand and thus total energy consumption in the last few decades. Even though human beings have made much progress in almost every field, but still, we rely on fossil fuels as the primary source of energy to meet our demands. A major proportion of the air-conditioning systems in use are vapour compression-based systems that not only have low efficiency but also use refrigerants like CFC, HCFC and HFC, which are one of the main sources of ozone layer depletion. Other sources of ozone-depleting substances include refrigeration, heat pumps, fire extinguishers and fire protection systems, and solvents. Air-conditioning systems are designed to maximize human comfort in the interior environment and promise well-being by providing optimum indoor air quality. An operating temperature ranging from 17°C to 25°C and relative humidity ranging from 45–60% is generally acceptable for places with sedentary activity. Additionally, the metabolic activity and clothing also determines the thermal comfort and its consequence on the ventilation. High percentage of water content in the interior space can also give rise to various problems, they are: 1. Condensation on internal surfaces, which promotes mould growth and thus can be a source of several health problems. 2. Moisture can also lead to the corrosion of metal, decay of timber and thus, damage the internal structure. Moisture content or

latent heat of air can be controlled either by condensing the water vapour or by using suitable absorbents as used in desiccant cooling systems. While conventional vapor compression systems simultaneously cool and dehumidify the air, a desiccant system only dehumidifies it. Moreover, a desiccant system can be used in combination with evaporative cooling system to maintain the temperature and moisture of incoming air. Earlier, desiccant systems were used for industrial and agricultural sector like textile mills, post-harvest crop storage units for humidity control and drying. However, energy crisis and necessity to develop more eco-friendly systems have led to the introduction of desiccant cooling systems as an effective method to control humidity.

PO–07 A Study of the Impact of Covid -19 on select Sectors of Indian Economy

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ABSTRACT

The new financial year started with the Novel Coronavirus (COVID-19) which has contaminated more than 8,766,74 1individuals and approximately 462,706 were died in near about 213 nations. The first trace of Covid-19 was identified in Wuhan, China which is now a pandemic globally. Most parts of world are under lockdown for more than two months. According to ministry of health and family welfare, government of India, COVID-19 has more than 3,90,812 active cases and 12,970 people were died. In India lockdown continued for more than 60 days. Therefore, economy also stopped here like other essential substances in India. The pandemic is affecting the entire globe, all human beings, their life, lifestyle, organizations and it has huge impact on the economy of our country. This selective study has been done on certain sectors to understand the impact of COVID-19 on Indian economy in different sectors and finally the paper will suggest some strategies for the revival of the economy.

Key words: COVID-19, Lockdown, Coronavirus

PO–08 Impact of pandemic COVID -19 on horticulture and nursery business

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ABSTRACT

Impact of pandemic COVID -19 on horticulture and nursery industry which is the part of agricultural section. This business is affected more because they are related to all type of customers public, social agencies, grampanchayat, schools colleges those who are aware about plantation. No of problems may arise for these workers and owners. Many nurseries were closed in lockdown. But they have to take regular care of all plants and saplings that developed or brought from other nurseries. Watering the plants, giving fertilizers, using pesticides, increases the tension and electricity bill. The losses may be more because of crisis of trained workers. In this paper survey method is used. Five nurseries were observed nearby Karad city. Interviews were taken with help of questionnaire. The owner as well as workers were interviewed. According to data collection. The impact on sale is more. The grampanchayat and schools had not yet purchase saplings for plantation only about 20% sale as compare to last year. But purchase rate of individual and families increases 60 % more than that of last year. The fruit trees sale increases about 70 % which is more this year because of the percentage of people increases more who came to their native places in lockdown. As they were free they use their time for plantation of fruit trees and ornamental saplings for their garden. In this year there is no hike in prices of any horticulture product done by owners. Increase in the cost of plants means negative impact according to owners & workers. This business will be in bad situation if lockdown and COVID -19 remain continuous..

Key words: Nursery, horticulture, lockdown

PO–09 Pesticide poisoning, health hazards and solutions way forward

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ABSTRACT

Due to pandemic threat of COVID-19 so, many visible changes occurred in the different government and private sector of the Nation. Particularly there is major disaster occurred in the field of agriculture and its severe outbreak has broken the backbone of the entire farming communities and destroyed the national economy. On the other hand due to the excessive use of chemicals in agriculture, the food chain had become so poisonous and because of that public health problems are continuously increasing. Unwarranted and excessive use of pesticides resulting in infertility, miscarriage, a decreased chance of live birth indigestion, hypertension, eye, skin and thyroid diseases are common. Prevalence of unscientific practices in terms of pesticide selection and use- even in the states with better literacy like Kerala. Kasargod episode in Kerala was the worst horrific incidence that took place due to continuous use of endosulfan over 15 years. A survey of only 123 households of Kasargod showed 43 cancers, 43 psychiatric, 23 epilepsy and 9 congenital abnormalities (Joshi, 2001). Pesticide's poses threat not only to human and animal health but also to the environment causing loss of biodiversity substantially. According to WHO pesticides are the cause of 30, 00,000 cases of poisoning and 2, 20,000 deaths every year across the world. This number has been increasing over the years. India is the leading producer of pesticides in Asia nearly 9 lakh tones of agrochemicals are produced annually. Out of which over 50 per cent of the total production is exported every year. Paddy (26-28 %) and Cotton (18-20 %) are the two crops for which pesticides are used. Andhra Pradesh (24 %) State is the top consumer of chemical pesticide of total consumption in India. Integrated pest management (IPM) is a

holistic approach to sustainable agriculture that focuses on managing insect, weed and diseases through a combination of cultural, biological and chemical measures that are cost effective, environmentally sound and socially acceptable. These practices are not only increasing the yield of the crop but also protecting biodiversity, maximize production and there by minimize losses in the crops. To achieve this objective and to obtain of poison free food we have to strengthen our sound extension system besides taking other measures as well. A report of NSSO (2012) showed that the poor efficacy, effectiveness and collapse of farm extension system that only 10 per cent of the farmers got their information's from it. Beside that we have to take some strict regulatory measure to shun this by collaborating approach. There is a need to introduce the much-needed human health risk assessment component in the clearance of new pesticides. The toxicology tests required by the regulator must be made more comprehensive. For comparison, up to 70 toxicology tests could be required by the regulators depending upon the product's intended use. This covers the assessment of impacts on people, animals and environment. FSSAI could fix maximum acceptable limits for pesticide residues in all classes of food. More attention must be paid to consumer rights in this issue. Need to establish a robust system for Grievance Redressal and compensation. The penalties imposed on violators must be in proportion to the sales achieved. Use of polluter pay principle for paying compensation for losses of human or animal lives, livelihood and environment. The government can mandate the pesticide companies to market their products with necessary safety gears of appropriate quality. The FAO and WHO, in the international code of conduct on pesticide management, recommended avoiding the use of pesticides that require the use of PPEs that are uncomfortable/expensive. Pesticides must be regulated like drugs– i.e. cannot be advertised/ promoted directly to the users. The pesticide company's representatives should not be the last point of contact to the farmers. Instead of roping in retailers and the pesticide sector to compensate for the government extension service, focus must be on leveraging the farm extension system. State government employees can be roped in to provide vital advice to the farmers and

take the latest research to the fields. The extension system can be strengthened with support from Krishi Vigyan Kendras, ICAR and other agricultural universities, toll-free helpline system, etc. As internet connectivity deepens, more and more farmers will depend on the internet for accessing information on pesticides. Public policy must be aimed at helping them identify valid information sources and protect them from spurious information put forth by profit-driven firms to promote their sales. Though Integrated Pest Management system is largely inefficient in India, it needs to be focused on. There is a need to promote sustainable techniques like pheromone traps, marigold borders, supporting local population of the pests natural predators (like birds) etc.

Key words: Pesticide Poisoning, Health Hazards, IPM

PO–10 Effect of depression, anxiety, stress and self efficacy among rubber farmers during lockdown in Kerala and Karnataka

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ABSTRACT

Depression is the most common mental disorder. People with depression may experience a lack of interest, significant weight loss or gain, insomnia or excessive sleeping, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide (American Psychological Association). Anxiety is an emotion characterized by feelings of tension, worried thought and physical changes like increased blood pressure (American Psychological Association). Stress is the non-specific response of the body to any demand for change (Hans Selye 1936). Self-efficacy refers to an individual & belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1997). Nowadays, especially during lockdown, Depression, Anxiety and Stress has increased for various reasons, which could develop problems in mental health. Especially Rubber Farmers during lockdown are more vulnerable to such mental health issues, may be due to lockdown and Corona spread around the world. The present study was aimed to investigate the Depression, Anxiety, Stress and Self Efficacy among Rubber Farmers during lockdown in Kerala and Karnataka. The study was conducted on 160 people out of which 80 from Kerala and 80 from Karnataka by using purposive sampling technique. Depression Anxiety Stress Scales (DAS) (Lovibond SH & Lovibond PF, 19955) and Self- Efficacy Scale (Bandura 1997) and Socio demographic data sheet were used to collect data. Data were analysed by using Mean, SD, Independent Sample t- test, and Pearson product moment correlation. Results prove that, there is no significant difference in the Depression, Anxiety, Stress and Self-efficacy among Rubber Farmers during

lockdown in Kerala and Karnataka. There is a significant correlation between (Depression, Anxiety, Stress) and Self Efficacy among Rubber Farmers during lockdown in Kerala and Karnataka.

Key words: Depression, Anxiety, Stress, Self-Efficacy

PO–11 The effect of marketing farm products on household income

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ABSTRACT

We used an instrumental variable approach in which the first stage consists on the estimation of whether the product stays in-farm or is sold (x1, i) using a Probit approach. Several variables are included as independent variables such as access to rural extension (z1, i) and rural credit (z2, i). In the second stage, we estimate the following equation. Brazilian agriculture relies heavily on public policies in rural extension and access to credit to promote productivity and efficiency improvements. i. Rural extension provides both knowledge on production techniques and managerial skills, which is important on guiding farmers to commercialize their products (Christoplos, 2010). ii. Access to rural credit allows farmers to invest on new technologies, increase production and better commercialize their product (Luan and Bauer, 2016).

Key words: Agriculture, productivity, managerial skills, technology etc.

PO – 12 Addressing the impact of lockdown due to COVID-19 pandemic on Indian farmers

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ABSTRACT

The ongoing crisis due to COVID-19 around the whole world has affected all walks of life. To manage the Indian agriculture during this pandemic, at the same platform as before is a most challenging task as it is the hardest hit in this COVID-19 crisis. According to FAO reports, agriculture contributes nearly 16% to the country's GDP. On the other hand, increasing population of India is leading to the constant rise in the food demand. The prolonged lockdown along with the drastically changed climate in many regions of India is pushing farmers towards the mental stress and triggering the agitations and suicides. Almost 10% of farmers were unable to harvest their crops in the month of April as immediate lockdown had announced. Meanwhile the farmers (nearly 60%) who had harvested their crops during the lockdown period reported yield losses because of low market price or due to travel restrictions or also due to the climate crisis in the midst of the pandemic. Out of four, every one farmer stored their crops due to lockdown instead of selling it. The small and marginal farmers (almost 85 % of the Indian household's farmers) are running for the raw materials like seeds, fertilizers, agro-chemicals, etc as they are not being able to afford them. Near about 56% of Indian farmers reported that due to the lockdown they are facing huge difficulties to prepare their lands for the next sowing season. Due to the closure of various hotels, sweet shops and other restaurants, the sale of milk and milk based products declined drastically and these items being perishable along with the fruits and vegetables won't wait for the lockdown to be over (as the farmers were unable to manage the post harvest

storage of their huge commodities) farmers thrown away their products as the prices were declined and they could not even able to get their production costs. Meanwhile, farmers who were engaged in poultry farming were badly hit because of controversial debate on the topic saying that chicken are the carriers of the corona virus disease. Since, agriculture sector in India is a state subject and is the most crucial for the every organism, to obviate the immediate concerns of farmers and to lessen their burdens is the utmost task and a need of the hour to focus more attention to the agriculture sector. As the kharif season is almost here for the sowing of crops government should give some liberty and should introduce some new schemes so that the loss caused in the previous seasons can be overcome in the next season and farmers can get the better output. Thus, we can clearly say that: "It is very clear that the damage caused by the COVID-19 pandemic will drop the country's struggling rural economy that supports nearly half its population into further distress.

PO–13 Screening of seed-borne fungi from Sunflower (*Helianthus annuus* L) seeds

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ABSTRACT

Sunflower is an important economic oil crop in India. The production and yield of the crop is inhibited by many problems the main of which are the fungal diseases. Sunflower seeds (*Helianthus annus* L.) was collected from oil seed research center Latur, field place and market places. Mycoflora associated with the Sunflower Seeds was isolated using three different techniques. A total number of seven moulds: *Aspergillus flavus*, *Aspergillus niger*, *Phoma* spp., *Alternaria helianthi*, *Penicillium* spp., *Cladosporium* spp. *Rhizopus nigricans* and *Fusarium oxysporum* were isolated from infected sunflower seeds. Findings from this study have revealed that while members of the *Aspergillus flavus, Aspergillus niger* and *Alternaria Alternarias helianthi* and *Fusarium oxysporum* are the dominant fungi which are causing seed rot and seedling blight of sunflower seeds.

Key words: Sunflower; seeds; *Helianthus annuus* Cv. Surya and seed health; testing methods

PO–14 Impact of lockdown on farmer

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ABSTRACT

In this time farmers are under very heavy stressful condition. Nowadays COVID 19 virus has spread in large scale and produce Corona disease in human. Corona disease symptoms in human flu, fever and cough are normally show and in dangerous condition infect respiratory system and blocked or stopped breathing. Lockdown in India during Corona pandemic everything are stopped i.e. transport, industries, market etc. Only emergency services are start like medical, gas service, bank etc. In these time farmers suffering from economically weak, mantel disturbed and physically disturbed. Farmers growing many vegetables crops of particular season. But, the Indian farmers are already financially broken. It does farming for its maintenance which takes various types of loans to do farming like buying seeds, buying pesticides, buying different types of organic fertilizers and chemical fertilizers etc. for It pays these loans by selling them in the market after the crop is ripe, but in the event of lockdown in India, the crop of the farmer could not be sent to the market, due to which it got spoiled. They contain various types of vegetables which spoil when they are not reached in the markets. Now in the event of lockdown in India, the crop or production of the farmer is not sold due to which he is under debt and at the same time is hindering the maintenance of his family. It is an appeal to our government that by providing literature to the farmers Smooth their livelihood. Now we are looking at different dimensions in the field of agriculture. Using scientific methods to enrich the farmers, in which we will encourage the farmers to produce different types of crops including crops, pesticides, herbicides, disease resistant, Crops with high productivity, short duration ripening, and low water requirement. By doing this, the cost of the farmer will be less and the production

will be higher, which will benefit the farmer in less expenditure and the farmer will be able to. If the farmer of a country becomes financially competent, then the economic situation of that country improves. We want that the farmer in India will be economically competent which will improve the economic condition of India and India will fall from the category of developing countries to the category of developed countries.

"There is a farmer then there is life"

PO–15 Study Impact of lockdown on farmers

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ABSTRACT

As novel corona virus disease 2019 (NCOVD-1) causes lockdowns in cities and countries, demand for fruits and vegetables in peri urban agriculture is likely to decline (already visible) and crop yields will decline. If the epidemic continues for a few more months in the coming season, the farmers are putting vegetables and fruits in waste bins as most of the Agricultural Produce Market Committees (APMCs) are closed during the lockout. The state government had announced that the lockdown would not affect the transportation and trade of agricultural commodities. But with the closure of APMCs in Mumbai, Pune and other cities, farmers are facing difficulties. As the farmers could not bring their produce to Pune and Mumbai APMCs, they dumped it in the landfills. The farmers; unions had demanded that the state government should find a way to start APMC and facilitate the sale of farmers; produce in the cities. But if for some reason the state government is not ready to open an APMC, the state institutions should buy vegetables and fruits from the farmers and supply them to the city market, he said. And this is really a very important thing that will bring great relief to all the farmers and all the vegetables of the farmers will be sold and it will benefit all the people and improve the economy. The APMC was asked to suspend its operations due to the rapid increase in Covid-1 cases in urban areas. However, he said, the state has allowed farmers and traders to continue to supply vegetables in coordination. He also testified that cities would not have to face shortage of vegetables and fruits. The police must not beat farmers heading to cities to sell their produce. Many small farmers are bringing vegetables and fruits to sell directly in housing societies and the police must cooperate with them, he added. Livestock production is also unlikely to become scarce in the near future. Milk production is largely automated and fodder is purchased in the

winter. Some farms still use stocks of silage, grain and maize. However, here it depends more on the distribution of fodder based on soybeans and other feed components. Much will be determined next week on the production and distribution capacity of the fodder industry. In short, with the near-term outlook for this season, large-scale crop and livestock production can be affected by the Coronavirus crisis in a single case, for example, if an infection occurs in a farm house. However, there is no reason to assume large-scale systemic problems. Farmers will be most affected financially and will not be able to get financial help in the coming season to start production. Because helping all the farmers will not be easy in Corona's time. Sometimes farmers took advantage of the increase in prices, especially in the case of fruits and vegetables. Others put a lot of effort into providing products to lower- income people to compensate for the loss of living in their homes. Each farmer had different ideas and different behavior as intended.

PO–16 Impact of lockdown on farmers

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ABSTRACT

The pandemic of Covid-19 has totally destroyed the economy of world and also India is not kept away from this. Especially, the world economy and also the other countries are surviving from these pandemic. India is known as agriculture based economy. The most of the population in India lived in villages and also their populations is totally depend on agriculture not only people also the other countries people depend on their agriculture. It is in big percentage agriculture supported the Indian economy. We not only produce greens also transport to other countries. Most of the Indian states and their economy is totally based on agriculture. But in the period of this lockdown Indian economy totally looking destroyed. The prolonged lockdown along with rain and hailstorm in many regions has heightened rural distress pushing anxious villagers to many lenders. A situation which farm leaders say can trigger agitation and suicides unless farmers get quick reliefs. the farm economy faced a severe hit when lockdown halted transportation there by stagnating the harvest. Further during the peak harvest the produce could not reach minds. Thus, disrupting the supply chain, also the unavailability of migrant laborers, intercepting the harvest and post harvest operations. The pandemics have given rise to several challenges in procurements operation as well. That apart, the sale of diary produces such as milk, egg, etc. is also facing problems. This is because of various operational restrictions.

PO–17 In-situ Organic Plant breeding – a challenge for Modern Agriculture

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ABSTRACT

Organic farming starts with organic breeding. Organic plant breeding has a high potential to provide farms with varieties perfectly adapted to organic farming. The organic farming has gained success day by day. The standards of organic farming are an expression of the underlying principles of health, ecology, fairness and care. It benefits to consumer, the environment and rural communities. Organic plant breeding is to develop plants which enhance the potential of organic farming and biodiversity. Organic agriculture challenges itself and researchers to develop new approaches within the framework of the principle of naturalness to gain the desired progress for organic production by new or additional breeding and propagation concepts.

PO–18 Production and marketing of Chickpeas by farmers

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ABSTRACT

The Chickpea (*Cicer arietinum*) is important for its contribution to enhance food security and as source of cash income for large proportion of rural households ever. They enrich soil with nitrogen, allowing farmers to use less fertilizer. Chickpeas with twice the protein of corn and four times the fibre of brown rice, will be incorporated in every meals such as mixed chana as breakfast or as a savory part of chaat or a snack. So, we must encourage the chickpea cultivation to alleviate hunger, poverty and problems of food security nations. Instead of further stressing those countries, we should use natural resources to satisfy international demand. Let us see how the chickpea will be useful for marketing in future.

Key words: Chickpea, food security, marketing, farmers, fertilizer

PO –19 Assessment impacts of Coronavirus (COVID-19) on Indian economy

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ABSTRACT

The World Health Organization (WHO) has announced that a new coronavirus outbreak is public health. An emergency of international concern, officials announced Thursday, January 30, 2020. WHO has proposed the disease is called "2019-nCoV Acute Respiratory Disease." 2019 novel coronavirus (2019- nCoV) Originating in Wuhan, China, it has spread to 24 countries and alerted public health officials. In the world Over 4,900 people have died globally and over 132,000 have been infected According to the Situation Report on Coronavirus Disease 2019 (COVID-19) on the WHO 13 March, 2020. 08 More than 100 countries have now reported laboratory confirmed cases of the March 2020 COVID19. Report Globally 105586 confirmed (3656 new) cases were reported, while in China 80 859 Confirmed (46 new) 3100 deaths (27 new) and 24727 confirmed (3610 new) 484 deaths outside China (71 new) (WHO Situation Report - 48, March 2020). Six positive cases were reported in Delhi and Uttar Pradesh 10 so far. There are five coronavirus cases in Karnataka, followed by Maharashtra 11 and Ladakh. Moreover, Rajasthan, Telangana, Tamil Nadu, Jammu and Kashmir, Andhra Pradesh and Punjab have reported one case each. Kerala recorded 17 cases, including three patients, released last month recovering from Infectious Infections with Flu-like Symptoms (Economical Time, 2020).

PO–20 Food processing: Sunrise Aspect of India

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ABSTRACT

India foods and it's association product are the talk of the world. The country addresses the food and grocery to the world at rank 6. Even cater the 65% total retail stores contribution comes from the food processing units. India completes the need of the world with the 10.7% Exports with the employment opportunities of 11.6%. The processed foods market has the $543 by 2020 expected. Food Processing units are comprised of grains, sugar, edible oils, beverages (tea, coffee) & dairy products. Food processing units are interlinking of the industry and agriculture. It provides the direct link of farmers to the markets. Farmers of rural communities to national and international market customers. The investment injected by the Atma Nibhar Bharat have injected Bout Operation Greens (TOP to TOTAL) Scheme got approved in June 2020,10. The ministry have included Scheme from Tomato, Onion and Potato (TOP) to all fruits & vegetables (TOTAL) but for half yearly period. The industry get it's stability with the produce & financial support. Atma Nibhar Bharat and financial aid to the food processing units. Subsidy will be given to 50% on the Following. Transportation facilities and storage facilities for the surplus production and eligible food.

PO–21 Indian agricultural sector in the CoVID era: Is there light at the end of the tunnel?

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ABSTRACT

The economic impact of CoVID-19 from the imposed lockdown on the Indian economy has been devastating. In India, with unemployment levels at an all-time high and GDP growth projections plummeting, no sector has been able to escape its impact. However, going by the figures, it seems that the agricultural sector has somehow managed to survive the onslaught and is comparatively well placed. The paper, first, analyses the impact of the lockdown on agriculture across states like Uttar Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, West Bengal among others in the context of how the sub-sectors, (namely, crops and cereals; livestock; fisheries and aquaculture; and forestry) within the agriculture sector have survived the storm. In this backdrop where the government has come up with a string of measures under the 'Atma Nirbhar' package, the paper also addresses the challenges that the agricultural sector might face in the days to come in terms of building up productivity, ensuring food security, access to institutional credit, handling supply chain disruption by ensuring minimum support prices (MSP), containing number of farmer suicides, use of technological platforms, migrant labourer problems, and employment challenges and tries to address these challenges arising (expected to arise) in the post-CoVID period.

Key words: horticulture, food security, fisheries, migrant labourers, land reforms

PO–22 Impact of Covid-19 on Agriculture Economy: Study on Lack of Agro-Technology

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ABSTRACT

The impact of COVID-19 on the economy is no doubt devastating. No sector has escaped its impact. Its impact on agriculture is complex and varied across diverse segments that form the agricultural value chain. To feed the hiking population, world food production must be increased sufficient. And this can be only done by the use of agricultural technology.

Keywords: Covid19 Impact on Agro-Technology, Transfer of Technology.

PO–23 Outbreak of Covid-19 Pandemic: It's effect on Indian MSME and Government Revival Measures

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ABSTRACT

Businesses play a key role in the India economy which produces goods and services and also provides employment. They are considered to be the life line of the economy which is labour intensive and requires less capital to start. Flow of funds is required for healthy growth of businesses and to carry out various operations. MSME is a significant contributor of Nation's economy which contributes to GDP growth. It is the part of several sectors of the economy that requires attention and support from Government. The sector is worst hit due to Covid-19 which has brought all economic activities to halt and has triggered panic and risk among businessmen. They is struggling to have stability of sales and revenues are at a halt. In such situation the Government has extended help to MSME by providing moratorium on term loans and eased working capital financing. Public sector banks have introduced emergency credit lines where MSME borrowers can avail a maximum amount of Rs 200 crores and SIDBI has announced 5 % rate of concession on all loans for MSME. The Government has also introduced policy framework to soften economic blow rendered to MSME sector. The Reserve Bank of India has initiated various monetary policy measures to combat the impact of Covid-19 which includes cut in Repo rate by 75 basis point to 4.4 %, inject around 3.74 Lakh Crore liquidity into the system and 3 months moratorium on payment of installments on existing term loans. Refinancing window for NABARD, SIDBI and NHB for Rs 50,000 Crores and has reduced liquidity coverage ratio to 80% from 100%. These measures were introduced to help MSME to tackle economic stress and will help to tide over the pandemic situation. This financial package will help MSME to build confidence

and revive the economy. MSME are cash constrained due to uncertainties with respect to demand for MSME products. It is suggested that Government should think innovatively to save the sector which has been contributing to the growth of the economy.

PO–24 COVID-19 Impact on Kerala Farming Community with economic considerations

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ABSTRACT

The pandemic COVID-19 has made impact on all sectors including agriculture. Its impact on agriculture sector is really complex and varied diverse segments that form the agriculture value chain. Among the different segments, the impact of COVID-19 varies widely on different regions, producers and agricultural wage labourers. So that, a study has been conducted regarding the Kerala farming scenario on basis of impact of pandemic COVID-19 on agriculture economy. In spite of all these measures and in view of continuing restrictions on movements of people and vehicular traffic, concerns have been raised regarding undesirable implications of COVID-19 pandemic on the Kerala farm economy. This is the peak of Rabi season in Kerala for harvestable stage or almost reaching maturity of paddy. Study resulted that, due to restriction with lock down rule made by Government of India, more than 90% people stucked in their home and they were unable to go for farming operations along with unavailability of farm labours caused severe threat for agriculture economy. Moreover, any severe disruption to the supply of perishable fruits and vegetables, dairy products, fish, etc. having militarised to meet the increasing demand from a protuberant of all classes of society, created irreversible damage to all stages in the supply chain along with huge loss of perishable agricultural commodities. In Kerala, the farming community is always depends on the labourers from other state like West Begal, Assam, Bihar, etc. for fulfilling the agricultural operations. The migration of workers from Kerala to their native places has also triggered panic buttons, as they were vital for both harvesting operations and post-harvest handling of

agricultural produce in storage and marketing centers to progress of agriculture economy.

Keywords: Agriculture, COVID-19, Economy, Kerala, Paddy.

PO–25 Impact of Covid-19 on Agricultural Economy

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ABSTRACT

India is an agricultural country. About 46% of the total population of the country is engaged in agriculture related activities. Agriculture sector occupies an important place in the rural economy; hence the area which provides the most employment in rural areas is agriculture. The share of agriculture in the total GDP of the country is 15 - 17%. Industrialization of the country depends on the development of agriculture itself, because 45% of the industrial product's raw material comes from agriculture related areas. The basic basis of rural banking development is also agriculture. Development is the current global epidemic has affected not only India but many countries of the world. The situation of many developed nations has become extremely pathetic. In this era of darkness in India, agriculture is one such area which has created hopes for- industrial development, services sector Education, health etc have been affected. The era of Covid-19 pandemic came at a time when Rabi crop was available in the fields for sale in the country. Farmers faced a lot of problems in selling crops like wheat, gram, pea etc. Due to good yields and upcoming good monsoon, it is being replenished as well as other areas related to agriculture, horticulture, fisheries, poultry, meat, eggs, due to less consumption capacity, the economic situation of the questions has become pathetic. Lack has arisen due to reverse migration of laborers are not available to do agricultural work, which is affecting agricultural production, keeping in mind the importance of agriculture, special package for agriculture development by the central government in the Covid-19 era The Government of India has made several welfare schemes to help the audience, including Pradhan Mantri Kisan Samman Nidhi Yojana, Dhan Jan Yojana, MNREGA, etc. Mines have also been made available to agricultural laborers. It

has helped in the down period. At present, the government should add more on the agriculture sector so that the economic and social status of the farmers can be improved and the productivity of the numbering mine can be increased. Reverse migration can provide immense employment to laborers only through AI. It is clear that agriculture is an important role in the Indian economy. The global epidemic has affected the agriculture sector.

PO–26 Implementation of Biotechnology in Agricultural Advancement

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ABSTRACT

Biotechnology must have a very significant role to play in agriculture. Modern biotechnologies can add greater precision and speed to plant breeding. Transgenic have Already been reported in more than 40 crop plants, including maize, rice, soybean, cotton, rapeseed, potato, sugarbeet, tomato, alfa-alfa, but the new varieties are yet to be used commercially. Wide use is currently made of tissue culture techniques for micropropagation of elite clones and for freeing planting materials of pathogens. Biotechnology promises to have a beneficial Impact on nitrogen fixation of plants. Biofertilizers are defined as biologically active products of microbial inoculants of bacteria, algae and fungi, which may help biological nitrogen fixation for the benefit of plants. The need for the need of biofertilizers have arisen primarily for two reasons 1) Increase in the use of fertilizer leads to increased crop productivity 2) Because increased usage of chemical fertilizers leads to damage in soil texture. Therefore the use of biofertilizers in both is economical and environment friendly.

PO–27 Marketing of Farm Products

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ABSTRACT

"Countries are ordering lockdowns, restricted movement and physical distancing to curb the pandemic causes disruptions in supply chain resulting from blockages on transport routes and quarantine measures results in significant increase in food loss and waste especially perishable agricultural produces like fruits, vegetables, meat, dairy produces etc."[Nutrition & Food System Division, FAO].In India also sudden call for lockdown has hit the farming sector and farmers esp. the small and marginal farmers very badly. Poor availability of labour and transportation facilities on consideration, both the state and central have taken various measures to ensure that the crop harvesting, logistics, and ware housing activities are not unduly impacted in the current season. The challenging situation faced by these fellow farmers was marketing their surplus produce. As a troubleshooter for this crisis Small Farmer Agribusiness Consortium (SFAC), has introduced a comprehensive approach to assist FPOs. SFAC provides technical and financial support to FPOs other than NABARD. SFAC connected with FPOs helps in marketing farm produces through Delhi Kisan Mandi or directly across the nation by creating networks with big buyers/firms, NAFED and Retailers association in and around major hubs like Lucknow, Mumbai, Kolkata, Andhra Pradesh, and Karnataka in south. More than 1000 FPOs are setup for market linkage during this pandemic. Also many FPOs are linked on e-NAM (National Agricultural Market) for trading. e-NAM also launched 'e NWR'(negotiable Warehouse Receipt) based on trading to facilitate trade from warehouse which plays a major scope for safe storage of food grains/ other fertilizer products from loss and damages. At present there are 1000 eNAM in India. It also provides logistics at their doorsteps by a mobile app named 'Kisan-Rath'. Farmers and stakeholders area also technologically

connected by Whats app group created with Pan-India buyers and Resource Industries to have a regular check on market forces and resolve logistic bottlenecks. According to the bulletin published by SFAC on 18 May 2020, the monthly average turnover during lockdown is 2079.10 MT against monthly average turnover of 693 MT in last 3 years which is more than 3 times higher in quantity 'of the value of trade under DSM connected with FPO. During this wreak havoc pandemic days, FPO compile all safety norms of social distancing and supports farmers and needy to earn their income by adopting all possible marketing measures to find the business opportunities available.

Keywords: FPO; SFAC; FAO; Delhi Kissan Mandi; Kisan-Rath; Covid

PO–28 Assessment of airborne microbes in selected crop fields of Mandya district, Karnataka, India

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ABSTRACT

Agriculture is the back bone of our country, were in the selected village Karasawadi in Mandya District, Karnataka where agriculture is the main framed work. The main source of pathogens dissemination is by air, because the air is the main vehicle for them to transport. Hence in the present work, air borne microorganisms were detected in the crop field by using petriplates exposure method with suitable media for Fungi, Bacteria and Actinomycetes. Culture media were prepared and petriplates were exposed in the selected fields for 30-45 minutes and then the petriplates were closed and safely transferred to the laboratory and kept in suitable temperature and for suitable time for their growth. After the growth of the micro-organisms, all the microbes were identified by colony morphology, spores and by carrying out some biochemical tests. A total of eleven fungi like *Aspergillus niger, Alternaria alternata, Verticillium* sp, *Trichoderma* sp., *Bipolaris*sp., *Cladosporium* sp., *Fusarium* sp,. *Stachybotrys sp. Penicillium* sp., *Verticillium* sp. and *Gonatobotrys*sp. were identified from all locations. Bacteria of about 10 species like *Klebsiella sp., Corynebacterium sp., Bacillus anthraces, Micrococcus* sp., *Pseudomonas aeruginosa, Staphylococcus aureus, Fusobacterium nucleatum, Listeria* sp., *Clostridium* sp., *Salmonella* sp. were identified using various biochemical tests from all locations. And of only three actinomycetes like *Bifenobacteria*, *Norcodia*, *Micromonospora* were identified, with four unidentified species. The present investigation showed that the most of the harmful bacteria, fungi and actinomycetes were present in higher percentage which may reduce yield in that particular area.

Keywords: Air-borne, microorganisms, Fungi, Bacteria, Actinomycetes.

PO–29 Bio war and Bioweapon

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ABSTRACT

Due to various innovations and successful experiments man has attended highly sophisticated life in this millennium. As a source of invention and innovation man got various successful try-outs to get various machines, use of various explosives which are smaller in size but highly effective in wars. Now days, life due to in trying to prepare for attacks, policy makers need to be able to think through the consequences of their decisions in various situations. Bio war is an effort to develop an accessible and precise simulation tool to examine disease propagation and agent behavior in response to disease and illness. Bio war moves beyond existing epidemiological models that do not consider the heterogeneity of social networks and the geographical distribution of people when predicting disease outbreaks. It is a new strategy by developing country to defend with enemy. We believe that it will serve to help researchers to understand, predict, and analyze weaponized biological attacks at the city level and engage in "what-if" analyses to help inform decision-making in this complex socio-technical policy domain. Many challenges, including processing of complex sample matrices and detection of multiple types of agents and modified or previously uncharacterized agents in a sample, remain to be resolved. The study has attempted to provide a survey of commercially available and developing technologies for biowar and its agent's detection. Many other technologies have not been included because insufficient published data were available to ascertain their accuracy and reliability. Many of the systems described in this review have proved invaluable in rapidly and accurately identifying biothreat agents. Although the risk of bioterrorism remains, detection technologies will continue to be improved to meet the encounters of this danger.

Keywords: Biological Agent, Bio war, Bioweapon, Pandemic.

PO–30 Life with COVID-19: Farmer & mindset towards the lockdown period

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ABSTRACT

The Corona virus infection disease 2019 (COVID-19) has made a worldwide wellbeing emergency that has deeply affected how we see our reality and our regular day to day existences. Not just the pace of infection and examples of transmission compromises our feeling of office, however, the security estimates set up to contain the spread of the infection likewise require social distancing by avoiding doing what is characteristically human, which is to discover comfort in the organization of others. Inside this set of physical danger, social and physical distancing is the best to avoid Corona virus disease. An online survey study had been conducted to measure the farmer mindset towards the lockdown period about their crop cultivation. The outcomes of the study feature that individuals who are typically dynamic, as showed by more activities, may be progressively susceptible to prosperity issues because of the lockdown. Farmers, especially belong to lower class families (based on their annual income), their mindset were stressful about the work, farming, health such factors. Almost 80 % farmers stated their intensified stressfull emotion towards the COVID-19 impact on their farming community. But the middle class and high-class farmers were more aware of this viral disease through social media and mass communications and compared to lower-class families, they were much more adaptive and ready to freeze their farming operations for particular lockdown period. This survey revealed that the emotional and miserable conditions towards the COVID-19 lockdown impact among the farming community in India.

Keywords: Covid19 Impact on Agro-Technology, Transfer of Technology.

PO–31 Impact of COVID-19 Pandemic on Agricultural Sector

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ABSTRACT

During December 2019, a novel Corona virus (2019-nCov) emerged in China, which posed an International Public Health Emergency in a couple of weeks, and very recently attained the position of a very high-risk category by World Health Organization (WHO). The COVID-19 pandemic has pushed the world into a recession. The COVID-19 pandemic is spreading amid troubling increases in world hunger. Agricultural production may be disrupted by containment measures that disrupted harvesting may be due to a lack of workers; planting because of a lack of seed or fertilizer; transport because of reduced transport facilities; market exchange and handling crops because of lockdowns or social distancing. While we should take these concerns seriously, especially for fruits and vegetables, which have complex supply chains, or foods sold primarily through restaurants, they should not be overstated either, especially not for basic staples such as rice, wheat, and maize. Global markets for cereals, particularly maize, wheat and rice, are important for meeting the dietary needs of billions of people worldwide, especially in Asia, the Middle East, and Africa. These should be addressed through measures that help maintain access to food, rather than through policies like export bans that may threaten that access. Unfortunately, several countries are considering export restrictions. Russia, the European Union, the United States, Canada, and Ukraine together are likely to account for 75% of all wheat exports in 2019-20. So far, only Kazakhstan, which has a 3% share in global wheat exports, has announced export restrictions for some cereals, as well as oilseeds and vegetables, until April 15. However, Russia is now also reportedly considering a ban on wheat exports. The rice market is equally concentrated, with 75% of exports coming from the largest five exporters, and nearly a quarter from India alone. Vietnam's world market share is 16%,

and as noted above it has suspended new export licenses. India's stock-to-use ratio for rice, however, stands at an historic high of 34% and prospects for the 2020 harvest are good, such that it should have no reason to consider export restrictions, although some concerns have been expressed about difficulties moving products domestically. An export ban by some key exporters would limit global supply and will certainly push up world prices of staple foods if others follow suit. Trade is allowing production to move from areas of surplus to areas of shortage, avoiding the drastic shortages and food insecurity associated with reliance only on local production. The pandemic may not recede in the second half of this year, leading to longer durations of containment, worsening financial conditions, and further breakdowns of global supply chains.

PO–32 Effect of Covid - 19 on coconut marketing in West Godavari district

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ABSTRACT

Agriculture has been playing an important role in the economic development of all the countries. India is one of the world's largest producers of crops like rice, wheat, coconut, sugarcane, fruits and cotton. Agriculture contributes 16 per cent to the country's Gross Domestic Product (GDP) in India, 70 percent of its rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal. Coconut output in India, the largest producer of the nut in the world and it plays an important role in social and economic lives of farmers in India, especially in the states of Andhra Pradesh, Kerala, Karnataka and Tamil Nadu. Andhra Pradesh, which is rapidly gaining steam in coconut cultivation, now has the highest productivity in the country at 13,563 nuts per hectare. The West Godavari district is the second place which cultivate large amount of coconut in Andhra Pradesh. The increasing trend of coconut production has brought new challenges in terms of finding market for the surplus. Most of the farmers sell their coconut the merchant in the nearby districts and states directly. Transport plays a crucial role in coconut market. It is very clear that the damage caused by the Covid-19 pandemic has been dropped the country's total transportation. The sector is facing a lot of trouble with lack of labour for land maintenance, marketing of the coconut and now it is facing another hit due to disruptions created by the Coronavirus. The present study explains the marketing problems faced by the coconut cultivators during the pandemic situations.

Keywords: Coconut Marketing, Problems, Covid -19, Lockdown.

PO–33 कृषि अर्थव्यवस्था पर कोरोना का प्रभाव: एक अध्ययन

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ABSTRACT

कोरोना वायरस से जीवन का हर पहलु प्रभावित है। खुदरा बाजार से लेकर शापिंग मॉल तक और कुटीर उद्योगों से लेकर बड़े उद्योग, सब पर घातक प्रभाव पड़रहा है। ऐसी स्थिति में देश का कृषि क्षेत्रा भी अछूता नहीं रह सकता। कोरोना वायरस का संकट उस समय आया है जब खेतों में रबी की फसल खड़ी है, कटाई का समय आ चुका है और किसान फसल कटाई के लिए १३ अप्रैल वैशाखी पर्व बिहार में जिसे जुड-शितल के नाम से जाना जाता है इसी समय से गेहूँ कटाई, रबी फसल आदि का श्रीगणेश होता है। लेकिन कोरोना संक्रमण के कारण हुए लॉकडाउन का प्रभाव किसानों पर बुरी तरह पड़ा है। एक तरफ गेहूं की कटाई और मढ़ाई का काम अटका हुआ था तो दूसरी तरफ आलू, प्याज, लहसुन आदि के भण्डारण। यद्यपि सरकान ने बीज, खाद और रसायन की दुकानों को खोलने की सुविधा दी हुयी है। यद्यपि केंद्र सरकार ने कृषि क्षेत्रको लॉकडाउन के नियमों से छूट दी है। सरकान ने मंडी, खरीद एजेंसियों,खेती से जुड़े कामकाज, भाड़े पर कृषि मशीनरी देने वाले केन्द्रों के साथ ही कृषि से संबंधित सामान के राज्य के भीतर और अंतर्राज्कीय परिवहन को भी लॉकडाउन से मुक्त कर दिया है। इसमें कोई संदेह नहीं कि लॉकडाउन लम्बा चला तो भारत में खाद्यान्न की कोई कमी नहीं होगी। सरकार राशन कार्ड धारकों को पात्राता से अधिक खाद्य सामग्री दे रही है।

जो किसान भूमिहीन है या अधिया, बंटाई या लगान पर भूमि लेकर खेती करते है उनके सामने एक गम्भीर संकट है क्यूंकि पूरी पूंजी लगाने के बाद भी उनका हाथ खाली ही है और अगर कोई सरकारी राहत योजना आती भी है उसका लाभ उन्हें मिलने वाला नही है क्यूँकि वह लाभ तो भूमि स्वामी को मिलेगा, उस पर वास्तविक खेती करने वाले को नहीं। कुल मिलाकर कोरोना संक्रमण के संकट के दौर में देश का अन्नदाता तमाम मुश्किलों का सामना करते हुए तमाम परेशानियों को झेल रहा है और संकट काल बीतने के बाद देश को आर्थिक मंदी के दौर से उबारने में अपने आपको समर्पित करने को तत्पर है। ऐसे में सरकार को भी किसानों के प्रति सहृदय नजरिया रखते हुए कुछ फौरी रियासतों की घोषणा करनी होगी जिसे उनका मनोबल न टूटे। किसान सम्मान राशि की नियमित किस्त खाते में हस्तांतरित किये जाने के अतिरिक्त कुछ ठोस राहत देने की पहल होनी चाहिये, भूमिहीन किसान और कृषि मजदूरों के लिए भी राहत योजना की जरूरत है।

PO–34 To study the traditional knowledge of wild food plants for builds the Immune system in Human Beings to control the Covid-19

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ABSTRACT

During the attacked of Corona virus 2019 (Covid-19) disease in human beings *i.e.* originated from Wuhan of China. Viral pathogen is very dangerous than the other. People are much feared from Covid-19. Covid-19 is cause by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2) in humans. Probably, Covid-19 attacked in weaker immune body and causes the death. According to the scientist, until no one antibiotics are working on the Covid-19. An only highest immune system bodies gives the resistance power, fight with the virus and control the attack of disease. So, the present study involves the identification, enumeration and use of indigenous knowledge on wild food plants consumed by rural people in different parts of Bidar district of Karnataka state recorded. Several field trips were undertaken to different villages of the district. Information's were gathered by the help of questioners and their observations documented. During the survey it was found that 16 species, from15 genera belonging to 9 families of wild food plants consumed from the local people for strengthen the immune system. Among the 16 species, 5 plants species were used as Young shoots vegetable, each 3 species as leafy vegetables and fruit vegetable, 2 as tuber edible and single sp. of *Senna tora* seeds as well as leaves vegetable, fruit pulp (*Limonia acidissima)* edible and whole plant vegetable (*Glossocardia bosvallea)*. Total 16 species, 2 species (*Amaranthus viridis* and *Phoenix sylvestris*) are available in local markets and other in cultivated lands, open fields and forests. It reveals that, some plants used as vegetable and few eaten raw as medicine for strengthen the immune system. It serves the traditional knowledge gives the use of wild plants as food and medicine for various diseases.

Keywords: Traditional Knowledge, Wild food plants, Immunity, Diseases, Covid - 19