IMPACT OF COVID-19 ON INDIAN AGRICULTURE

Situational Assessment of Mint (Mentha Arvensis)

This report was prepared in discussion with farmers, FPOs and other stakeholders engaged in Mint value chain along with review of secondary literature.

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Covid-19 is likely to have widespread impact on Indian agriculture. While many agriculture crops and allied activities are expected to be impacted by this pandemic, mint crop which is being cultivated during the months of February-June would also not be an exception.

IMPORTANCE OF MINT IN INDIAN CONTEXT

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Season for Mint Cultivation in India

Cultivation of mint require dry season combined with high temperature and no water logging. Thus, best suited season for its cultivation is during the month of March-June. It is a Zaid (summer) crop requiring 75-90 days for maturity. In mint growing regions of UP, this crop is sown (transplanted) immediately after the harvest of Rabi crops and cultivated before the onset of monsoon. Since the timing of crop cultivation falls during the lockdown period necessitated by Covid-19 pandemic, mint crop is expected to see an adverse impact across its sowing to distillation (to get mint oil).

Pre lockdown (No impact)		Lockdown period (High impact)		Post lockdown (Moderate impact)	
Jan-Feb	**March**	**Apr**	**May**	**June**	**July**
Nursery Preparation	Transplantation Fertilizer application	Weeding Fertilizer, Pesticides, micronutrient application, Irrigation,		Harvesting Distillation of mint oil Sale of mint oil	Sale of mint oil Preparation for Kharif crop
	Delayed wheat season Availability of quality stolon Shortage of labour for transplantation	Shortage of labour for weeding Non availability of pesticides and herbicides and micronutrients Transportation of fertilizers		Distillation units not repaired and purchased	Cash crunch for Kharif season

[1]Source: -Data from Mint Growers Association of India, Choudhary et al

[2]https://www.thehindubusinessline.com/economy/agri-business/high-prices-boost-mint-cultivation/article26332498.ece#, accessed on March 2, 2020

Potential impact of Covid-19

As the Covid-19 emerged during the cultivation season of mint, there are some stages of production which have already been impacted while some others are expected to be impacted due to ongoing lockdown necessitated to arrest the spread of Covid-19.

Land preparation and sowing

- Majority of the farmers who were having mustard and potato as their Rabi crop have completed the sowing (transplanting) of stolon. Farmers who are doing the transplanting now, are expected to access mint stolon as nurseries were already prepared and availability of Stolon does not pose a big concern.
- Farmers, who were supposed to transplant the stolon after the harvesting of wheat crop, have faced difficulty in transplanting the crop on account of delayed harvesting of wheat, shortage of labour for transplanting and availability of quality stolon. It is expected that this may lead to the reduced area under mint cultivation in UP, particularly in Barabanki district in comparison to previous years.

Availability of Agri Inputs (Fertilizer and Pesticides)

- Unavailability of pesticides and herbicides at the Agri-input shops is one of the major issues faced by mint farmers. Pesticides manufacturer are not in position to deliver the pesticides due to ongoing restriction. It is feared that in the absence of timely application of pesticides at right crop stages may lead to the potential pest attacks and subsequent crop damage.
- Few input traders have fertilizers stocked in their godowns thus availability of fertilizers may not be a major concern. However, restrictions on movement of vehicles to reach towns for accessing fertilizers have created reaching out challenges for input traders and accessibility challenges for farmers.

Intercultural operations

- The month of April is the time of weeding operations in mint crop. Since herbicides are not available in the market, there is a demand of labour for weeding operations however, imbalance of labour among the villages and restriction on their movement combined with fear of infection is making manual operation difficult. Now these operations are largely taken care either by the family members or are postponed.

FIGURE: Mint oil distillation units lying at fabricator's shop

Harvesting and distillation of mint oil

- After harvesting of mint crop, the biomass gets processed locally in the distillation units to obtain the mint oil. Only mint oil is traded in the market.
- Every year thousands of farmers either purchase, replace or repair their mint oil distillation units. However, due to ongoing lockdown all the fabrication units are closed, and if the lockdown continues for a longer period, this may adversely impact the distillation process and subsequently quantum of mint oil produced and traded.

Sale and marketing of mint oil

- Mint oil is an equivalent of a liquid asset for the farmers. They sell the oil whenever in need of the money. During the tele-discussion with farmers and other stakeholders, it has been found that the traders are not buying the mint oil since they are not in position to supply or process it. Experts in the sector are of the belief that this year overall area under mint cultivation may reduce by 10-15% due to non-sowing of the crop.

Institutional support to farmers during Covid-19

Tanager is implementing a project with around 22000 farmers in mint growing villages of Barabanki and Lucknow district of UP. During the study we spoke to the project team to understand the kind of support provided by them to farmers. Some of the important areas are as follows.

- 4 FPOs formed under the project are helping farmers by facilitating supply of fertilizers and pesticides to their villages.
- Tanager has a large extension team for the project. This team is disseminating information around good agriculture practices to the farmers through digital mediums like WhatsApp and You-tube to and also use the mediums to address various farmers' issues.

> "This is the most critical time to provide extension services around GAPs, our team is using digital mediums and phone calls to reach out to the farmers and provide them timely advise"

– Abhijeet Sharma, Project Manager, Shubh Mint Project Tanager

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