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Venue: Dwarakinath hall

Seminar I

“Perception of farmers on importance of pollination and pollinators in agricultural production”

Synopsis

A pollinator is the biotic agent, animal or vector which moves pollen from anthers of a flower to the stigma of another or same flower to accomplish fertilization of a flower. Pollination is a key process in seed and fruit formation, making it a critical determinant in food production. In addition, they benefit by increasing food production, food security that in turn improve livelihoods and play a great role in conserving biological diversity in agricultural and natural ecosystems. Insect pollinators contribute to the productivity of more than 75 per cent of important crop species (Klein *et al.*, 2007). Direct contribution of insect pollination to Indian agriculture is staggering Rupees 1,12,615.73 crores (USD 22.52 billion) annually, representing 8.72 per cent, besides spill over benefits of increase in quality traits, seed production, breeding efficiency, etc. For stagnant Indian agriculture, this “micro concept” of using honey bees for planned pollination of crops has the potential “macro-economic” impact. Thus, conservation of pollinators has become crucial for advancing United Nations Sustainable Development Goals. Understanding farmers’ perceptions on the role of pollinators and the practices adopted to promote them is essential and highly relevant to influence the way farmers manage their farms and participate in the implementation of agri-environmental measures. Keeping these aspects in view, the present seminar has been conceptualized with the following objectives.

1. To understand the concept of perception.
2. To know the perception of farmers on importance of pollination and pollinators in agricultural production and institutional role to change the perception of the farmers.
3. To review the related studies.

Concept of perception

Perception refers to way we understand the world around us. People respond to the situation based on perception of reality than the reality itself. Perception in communication determines how one will communicate and how they will receive information from another person. Because of different personalities, cultural differences or past experiences, what one person intends to communicate may be differently perceived by another. Some of the factors that influence perception and communication include self-perception, learned perception, environmental perception and cultural perception.

Perception of farmers on importance of pollination and pollinators

Farmers’ perceptions were investigated in order to harness their knowledge in the participatory development of conservation strategies of pollination services. As farmers are the ultimate managers of the agricultural landscape at the local and regional scale, it is essential to understand their perceptions to design innovative and sustainable solutions applied from a science– management– practice perspective.

Initiatives to promote the perception of farmers

Incorporating farmers’ perceptions into the 2021–2027 CAP agenda is fundamental, as farmers will be key and active actors in developing new strategies to focus investments toward the

efficient delivery of pollination services in agricultural landscapes. During 5th meeting of Conference of Parties of the Convention on Biological Diversity held at Sao Paulo, in 1995, a decision was taken to establish an International Initiative for the Conservation and Sustainable Use of Pollinators. International Pollinator Initiative (Action Plan for 2018-2030) -13th meeting of Conference of the Parties to the CBD held in Cancun, Mexico in 2016.

Institutional role in changing the perception of farmers

- 1) Ministry of Agriculture 2) National Bee Board 3) KVIC 4) ICAR through AICRP on honeybees and pollinators 5) KVK's.

Research studies

Theodore (2011) concluded that knowledge on pollination were influenced by social, educational, cultural and individual attitudes of the respondents. It was also found that gender, general knowledge, age, level of education had no importance in knowledge with regard to pollination.

Pudasaini et al, (2016) elucidated that farmers noticed the decline in pollinators in their farms but could not know the reason behind it was the excessive spray of chemical pesticides. It was reported that 16.67% of respondents could find dead pollinators in their farms, 13.33% of respondents found pollinators repelling from their farms.

Conclusion

To meet out the healthy-nutritious food requirement to ever-multiplying population, production of agriculture produces shall have to be maximized through integration of numerous approaches, of which, pollination management system is considered major one for which conservation & restoration of insect pollinators is highly required. Differences in perceptions and knowledge of pollination constitute a major obstacle in farmer–researcher cooperation and collaboration which is necessary to be bridged down for sustainable management of pollination services in rural farmlands.

References

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