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CHALLENGES TO BEEKEEPING IN PAKISTAN DUE TO CHANGING PATTERN OF RAINS

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Honey and beekeeping have a long history in Pakistan. Bee hives neither demand additional land space nor do compete with agriculture or animal husbandry for any input. The beekeepers need only to spare a few hours in a week to look after their bee colonies. Therefore, there is a great scope for expansion of bee keeping industry in the country. Pakistan currently has around 16000 beekeepers with 0.5 million honeybee colonies. Beekeeping does not compete with other enterprises for resources as the bees use nectar and pollen grains of plants. Therefore, this enterprise can be taken up both at the household and commercial levels to generate substantially more profits.

Floral sources are abundant for beekeeping in most of the areas in Pakistan. Northern Punjab and KPK province of Pakistan are very suitable for beekeeping on account of different ecological zones containing rich bee flora and ideal climatic conditions. But beekeepers in these areas are facing severe stress to carry on beekeeping activities these days due to continuous non honey production seasons. Factors involved in low honey production are continued raining most of the times, low temperature, delayed flowering and reduced foraging activities of bees.

Last year during October, the beekeepers were able to harvest only 20% of the berry honey, due to sudden rain and wind storms during the middle of the honey flow period, which even took away the bee colonies. As a result flowers containing nectar were dropped and the bees were unable to store honey.

Beekeepers passed the winter season with hope for better conditions during next year but weather conditions also remained unfavorable during current year and frequent rains affected the bee flora drastically. Beekeepers were not able to start queen rearing process for replacing the old queen with young, energetic and healthy queens. New queens are very crucial to maintain the number of colonies and bee population having good inherited characters for the next seasons. Drones necessary for successful queen rearing were killed due to shortage of food in March. Bee colonies started to increase their population one month later than the normal schedule. At the time when foragers were needed to bring and store nectar from the crops, the bees were engaged to consume more food in the form of honey to nourish the young larvae. Abrupt rainfall pattern severely affected the honey to be harvested from Brassica, Citrus, Robinia, Phalai and Carissa plants. A few farmers were able to get honey from Clover and Eucalyptus. Robinia honey in Northern areas remained 25% of the previous crop due to excessive rains. Now the honey flow season is going to end during this month and beekeepers are facing sever trouble to pass the hot summer conditions with weak boxes, without nectar flow bearing heavy input expenses.

Most of our beekeepers are poor people, they get money from middle man to feed and shift colonies at different times of the year and when they produce honey, the borrowed amount is finally adjusted against it. Due to continuous failure in honey production from last October, they are not in good position to bear the expenses of shifting, feeding and medication of bees for the coming season.

Beekeepers are disappointed, due to which many of them are deciding to quit the business and sell the colonies at low rates. Now new beekeepers will emerge with scarce knowledge that will result in low productivity in the coming season. New beekeepers with lack of interest in beekeeping may also lose their colonies due to negligence in hive management Moreover chances of sudden change in weather conditions still exist, and more difficult to wait for next season and get profitable returns in form of abundant honey.

At the same time our crop will be deprived from the pollination services of honey bees, which are provided, free of cost to our farmers and crop yield is increased. Honey bees give 15-20 time more value in the form of pollination then all hive products put together. In USA almond farmers pay 150 dollars per hive per season as a rent for crop pollination to the beekeepers. But our beekeepers provide this service free of cost to our crops. Honey bees are the most efficient pollinators among insect and one bee visits 50-100 flowers in one trip and about 2 million flowers to make one pound honey.

Therefore decrease in beekeeping activities is more likely to affect the production in agriculture commodities particularly fruits, vegetables and oilseed crops.

Awareness regarding honeybee health and promoting bee flora are being seriously focused now a days in modern world including USA. In USA, a national strategy to promote the health of honey bees and other pollinators for next ten years has been devised by pollinators health task force formulated under the presidential memorandum of President Obama on May 19, 2015 to promote beekeeping. Similar is the case with other developed countries.

Keeping in view the current scenario the government of Pakistan is requested to provide immediate help to the beekeeping industry to save the beekeepers from monetary losses due to severe climatic change. Moreover the farmers should be advised to cultivate more flowering crops, and government forest departments and other agencies are requested to include trees like Acacia, Robinia, improved varieties of Eucalyptus and Russian olive in their plantation plan along the roadsides, parks and government lands so that food shortage for bees may be addressed to some extent.

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