

# **Role of agricultural practices to achieve food safety in medicinal plants in West Bank from farmers and trader's perspective.**

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## **Abstract:**

This study aimed to identify the role of agricultural practices to achieve food safety in medicinal plants in West Bank from farmers and trader's perspective. In order to answer the study and hypothesis questions, the previous studies were reviewed, a questionnaire was filled (110) for farmers in the study area, and one focused group of six extension guides and ten traders interviewed. The questionnaire consisted of 66 questions, three axes (product safety in the farm, product safety during manufacturing, and personal safety). The focus group was analyzed using SWOT analysis which was conducted after identifying the strengths, weaknesses, opportunities and threats of the medical plants sector from the perspective of the extensionists. During the interviews with the traders, ten questions were answered to identify the role of agricultural practices in achieving food safety in the medicinal plants from their perspective.

The results showed that the degree of impact of the role of agricultural practices in the achievement of food safety in medicinal plants in the northern West Bank from farmers perspective for all of the fields of study was very large and large. It is clear in the field of produced safety in the farm that "commitment to safety period" obtained the highest averages with a very large degree and the lowest was obtained by the paragraph "Use of fertigation methods". In the field of safety produced during the manufacture, it is clear that the "cleanliness of the workplace" has obtained the highest mathematical averages and the least received for paragraph "the amount of salt of lemon". In the field of personal safety, it is clear that "hand washing after spraying" received the highest averages and for the least it received for paragraph "commitment to appropriate spraying time". It is also emphasized that there is a great role to receive extension services, farmer's commitment to use production guide, quality certificate and food safety legislation to achieve food safety in

medicinal plants in the northern West Bank from farmers and trader's perspective, but high-income farmers are more committed to them.

However, after asking the farmers about the use of pesticides on their medicinal crops, it was found that there is a chaos in the use of pesticides in the sample of the study in the northern West Bank, where many of the pesticides are not authorized by the Ministry of Agriculture such as Falcor, Melamon and pesticide decrazole. There is also a lack of commitment for the appropriate pesticide concentration when spraying as well as farmers' failure to comply with the specific safety period for each pesticide. Also, some pesticides are used in an inefficient way, as sometimes a fungicide is sprayed to control some insects. As for the agricultural operations, the farmers of medicinal plants are very much concerned with their focus on soil cultivation, irrigating and fertilize of medicinal plants and provide labor. As for the sterilization of soil, the vast majority of farmers do not care about this practice and do not perform and therefore require the use of a larger amount of pesticides. As for the specifications required for export results were not satisfactory and based on just the farmers experience.

As for the problems and obstacles faced by the sector from the traders perspective, with their practical experience in the sector, there is a weakness of the Palestinian laws that regulate the sector. On the other hand, the absence of a special laboratory in the Ministry of Agriculture to examine the product and give the health certificate for insects and residues is one of the problems and obstacles facing this sector. And the most important problems and obstacles is the occupation through the control of the crossings points and the consequent detention of the products.

**The most important recommendations were:** Increase the interest in the medical plants sector due its great economic and nutritional benefits, Increase awareness of farmers at all stages including at the farm, during the process of manufacturing and personal safety in order to achieve the safety of the product, not rely on the knowledge and awareness of farmers only to achieve food safety, but it should be clear to farmers that there are roles and inspection of products and there is a possibility to rewind the goods, the need to intensify efforts by institutions that work in the agricultural sector to increase and raise the

efficiency of agricultural extension provided by these institutions to the medicinal plant farmers. More attention should be given by organizations working in the agricultural sector to clarifying legislation and regulations related to food safety where the farmers in the study area do not have any information on these topics. The organizations working in the agricultural sector should provide the necessary guidance and support to agricultural associations in general and for women's associations in particular and the need to establish a national laboratory to examine the safety of product for local market and for export.