

Requirements for the dissemination of tree forests cultivation using treated wastewater in South Sinai Governorate

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Abstract

The research was conducted to identify the importance of tree forest cultivation using treated wastewater. to identify the knowledge requirements of the cultivation technical recommendations. to recognize the most important conditions and characteristics that must be met in extension messages related to the cultivation of tree forests. to identify the most important extension methods that are necessary for spreading the tree forestry. to identify the proposals of the respondents that help promote the spread of tree forests in South Sinai.

The research was carried out in South Sinai Governorate specifically in El Tore city of Sinai. Sharm el-Sheikh and Nuweiba. for the presence of (10) forest forests. The total research sample included the staff working in Sinai City Agricultural Directorate. and the agricultural Departments in Sharm el-Sheikh and Nuweiba who are practicing extension works and totaled 82 respondents. The data were collected through a questionnaire that was collected by interviewing the respondents. The data were analyzed using SPSS.

Results concluded the following:

- * Most of the items that reflect the respondents' view of the importance of tree planting using wastewater treated with the desert hinterland were of high importance i.e. providing new employment opportunities for youth (2.71). maximizing the economic return from the utilization of treated wastewater in tree forest cultivation (2.65). the addition of new agricultural areas to the desert areas and the establishment of new communities around them (2.55). the contribution of woodland forests to air purification and climate mitigation (2.51). the capacity of the timber forests to grow in unproductive marginal lands and saline lands (2.40). and the contribution of timber forests to the fight against desertification (2.28).
- * There was a high knowledge Requirement for a number of eight knowledge required to respondents on the cultivation of tree forests on the treated sewage in South Sinai waters namely: land preparation for permanent cultivation (3.56). and the suitable location for the establishment of tree forests (3.54). and method and date of propagation (3.34). procedures for preparing the nursery for cultivation

(3.33). method and timing of irrigation used (3.24). pre-cultivation practices (3.23). care of seedlings (3.21) and planting the seedlings in the permanent cultivation sites (3.18).

- * The conditions and characteristics required for extension (messages) brochures in the field of tree forests cultivation using the treated wastewater are of high importance. that was shown in respondents' responses since 4 out of them had a high importance degree i.e. implementing the messages were economically inexpensive (2.32). easy to implement (2.28). simple and clear to understand (2.26) and consistent with the customs and traditions adopted in the region (2.15).
- * The results also showed the importance of the use of extension methods in the propagation of tree forests on treated wastewater in South Sinai Governorate. The highest of these methods was the method of demonstration (2.70). and the lowest was the extension (messages) brochures (1.99).
- * The respondents mentioned a number of proposals that could promote the propagation of tree forests using treated wastewater in South Sinai Governorate. These proposals were presented in two groups; the first group concerned with the requirements related to tree forests cultivation using treated wastewater. the second one dealt with the material and literary requirements for disseminating tree forests cultivation using treated wastewater. The most important of these proposals was the wastewater to the outskirts of towns and governorates in remote parts of the desert fringe as a source of irrigation tree forests (97.56%). and Provide contact data for forest plantation experts in Egypt(95.12%). and the cultivation of tree forests in all governorates and in the desert fringe near the sewage production plants as a green belt around cities (92. 68%). and encouraging the private sector to invest in the output of forest plantations (85.36%).
- * The research recommended that the agricultural extension system to build extension programs seeking the optimal utilization of treated wastewater in South Sinai governorate and disseminate it across the desert fringe and the governorates all over the country. with the provision of all the technical and material support for to those in charge of the cultivation of those forests. and finally discuss ways of creating industries based on tree forest product as a motive for the expansion of the cultivation in South Sinai Governorate and the similar desert fringe areas.