



**Hygienic and economical challenges of compost from mixed
solid wastes in Iran**

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Observing of criteria and standards are generally in solid waste management in order to environmental protection and public health conservation. Observing this issue is an avoidable necessity in creation and development of compost industries from beginning of production line to final product and must be considered in various sections of compost management and particularly product control and degradation of materials from plant nutrition and hygienic aspects. At present, there are more than 10 compost production units which utilize hazardous municipal wastes that are not separated. These units expend billion Rials and are fundamental challenges in hygiene and economy of waste management. Lack of standards and absence of control on such units by authorities and unbalancing of economical aspects of biocompost in comparison with other waste disposal methods and also inattention to development of biocompost plans enhances this challenge. Various challenges in biocompost production regarding to world standards are discussed in addition to comparison of biocompost and mixed-compost production methods, and will be applied as a base in conversion of procedure in biocompost production and among optimal standards. It must be noted that creation of mixed-compost units in Iran which are planned and created by others countries, are prohibited in many developed countries such as Germany, which is a leader in compost industry, since 1993. Remember that by surveying on heavy metals, plant nutrients and absence of parasites in mixed-compost is could not be stated that this compost is standard. Presence of toxics, medical wastes, industrial wastes and inattention to grits, glass, plastic and lack of control of temperature, odor control, safety issues and protecting staff health and also sampling plan and procedures and inattention to economical aspects in comparison with others disposal methods such as sanitary landfill in various region are specific challenges which should be regarded clearly based on a sudden plan for development, creation of efficacy of compost industries. It is appear that production of mixed-compost in same manner such as many countries and regarding the absence of criteria and or absence of ability to implementing necessary tests directly threatens the health of farmers, community people, soil and environment and is not appropriate for environmental health. Thus, in order to completing of reasons and confirmation the mentioned instances, some criteria and standards which are applied in developed countries such as Germany are compared with current conditions, results of tests, and various compost production in Iran. This include fundamentals and aspects for composting units, specific criteria and standards for facilities and equipments, production process and controlling of final product and parameters of declaration for material delivery. Another important part is comparison of mixed-compost and biocompost, which are in various types such as advanced industries, home composting and vermi-composting that should be regarded by responsables in Ministry of Territory, Ministry of Health, and Environmental Protection Agency.

- 1- Determination of solid waste management strategy through establishment of specific commission with contribution of university professors and related experts in as soon as.
- 2- Straightaway suspension of irregular investment in mixed-compost industry and expanding biocompost plans similar to developed countries.
- 3- Assessment of mixed-compost industries in comparison with biocompost from hygienic and economical aspects point of view and regarding them as a pattern in compost production strategy.
- 4- Preparation of specific compost standards and controlling them by responsible institutes such as Standard Organization, Environmental Protection Agency, Ministry of Health, Ministry of Agricultural Jihad, etc.

Keywords:

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