*Third National Congress of Recycling and Reuse of Renewable Organic Resources in Agriculture*
**Islamic Azad University, Khorasgan Branch (Isfahan)**
**Agricultural Faculty, Waste and Wastewater Research Center**
**13-15 May 2008**

# A feasibility study into efficient use of wastes from almond and walnut processing plant

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Production of products from limited available resources becoming a challenge, thus every country in the world is developing a range of strategies to surmount this impediment. Improving productivity and reducing wastes and unwanted by-products are the most chosen strategies; however in many processes wastes are inevitable. The next strategies thus will be utilization of these wastes and byproducts for production of added value products. With production of over 150 and 108 thousand tons walnut and almond in 2004, respectively, Iran is among the top ten producers of these commodities in the world. This rather large production capability produces large amount of soft and hard shells. It is therefore of crucial importance for the Iranian officials to develop a long term plan for utilization of these wastes in various industries in order to increase overall productivity and manufacturing added value products within the agriculture sector. The objective of this study, bearing in mind the present position, was to propose a suitable outlook for utilization of walnut and almond wastes in other industries. The SWOT analysis based on brain storming method was executed for these wastes and a suitable plan action based plan on this analysis was proposed. The outcome of the study based on SWOT analysis, signified potential utilization of these wastes in manufacturing products such as tannin and activated carbon is very promising. Parameters such as cheap raw materials and low overall production costs are among the strength points of the proposed plan which my be a good indicator in pursuing the existing opportunity. In the analysis the possible threat from the cheap import of products (obtained from the wastes from walnut and almond) was also considered. Furthermore, using the knowledge acquired from the analysis (strengths, weaknesses, opportunities and threats) a development strategy was determined.

**Keywords:** Wastes, Almond, walnut, Carbon active, Tannin, SWOT analysis, Development strategy

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