



Study on applicability of cotton seed delinting losses

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Cotton (*Gossypium hirsutum* L.) is one of most important agricultural and industrial (fiber) crops. World cotton production in 2003 was 560.97 million ton and in 2005 in Iran 160thausonds hectare cotton was cultivated and 363 ton cotton produced by 2390 Kg/ha yield. Seed most important crop production input like as cotton and cottonseed delinting is most important cottonseed processing practices that perform as chemical and mechanical methods and have some advantages like as decreased planting seed, mechanical planting possibility, field emergence and seed health increasing. Also, Iran has four delinting plant in major cotton seed production regions, which because technical problems and environmental pollution of losses, now are inactive or active by minimum capacity. However, cotton seed presents special environmental problems, in disposal of the linters from mechanical delinting, are normally collected, baled and sold as industrial raw products. Light, broken and untreated seeds can be either sold for oil mill purposes, or ground and mixed with livestock feed. The gossypol content of cottonseed requires care for feeding, but can be either heated to overcome the gossypol problem, or blended into other feed. The concentrated acid-washing system has largely been discontinued because of the large quantities of acid-water which must be disposed of. dilute acid system using the centrifuge to recycle excess water and acid largely eliminates residual wastes. The small amount of acid-water waste which is periodically discarded can be neutralized and then safely disposed. Delinted linters can either be (1) neutralized with ammonia and blended into livestock feed, (2) neutralized and used as soil conditioner or (3) not neutralized and used as soil conditioner in areas with soils high in pH basic or alkaline soils.

Keywords: Cotton seed, Dellinting, Concentrated and diluted acid, Losses

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