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Ecological board for ground waters of the irrigated zone

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The agricultural production on the irrigated grounds does not do without some mineral fertilizers, pesticides and herbicides. Especially strongly it is shown in Uzbekistan, at cultivation of a cotton. About 500 kg/hectares of mineral fertilizers, up to 10 kg/hectares of pesticides, herbicides and defoliants are annually brought. These substances are partially acquired by plants, partially adsorbed by ground. Unfortunately, up to 25 infiltrated with irrigation water through a zone of aeration also get in underground water. There is an increase in its mineralization, rigidity, quantity of heavy metals, phenols and others pollutions. Thus there is an exhaustion of stocks of fresh underground waters.

In 2003 year we were offered to create the ecological board which is not allowing pollution to get up to a level of subsoil waters in the top 30 centimeter layer of ground. There will be an accumulation and pollution processing. This layer possesses high adsorbing ability to heavy metals, mineral oil, the rests of mineral fertilizers, defoliants and to pesticides. There should be a biological pollutions processing in saving substances.

The idea consist in the following. All well-known adsorption properties of coal. In sediment bowls Angren coal washing factories in the Tashkent area of Uzbekistan has collected more than 10 million tons of the coal dust mixed with clays. We have picked up association of anaerobic microorganisms which, using for development, destroys nutrients of coal waste pollutions to harmless components for the person. Coal waste inoculation also are scattered by these microorganisms on a field before plowing. Deep (up to 30 sm) plowing brings them on depth from 5 up to 30 see Is created by a plough a layer with necessary protective properties. The norm of entering

depends on structure of ground and quantity acting of pollutions.

Laboratory experiences have shown, that 50% pollutions are late on an ecological board and are processed up to safe components.