



## **Agricultural pollution of underground waters.**

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In Uzbekistan on an irrigated arable land (the basic manufacturer of agricultural production) in 1965 147 kg of fertilizers on 1 hectare, in 1975 already 238 kg, and in 1987 - 306 kg were brought on the average. For comparison in 1987 the average indice in the former USSR made only 122 kg. Now annually in ground in territory of Uzbekistan gets about 2 million tons of mineral fertilizers, 40 thousand tons of pesticides and herbicides, 200 thousand tons of mineral oil, tens millions tons in wastes. The basic part pollutes superficial water, but also up to 20 % infiltration in underground. There are two variants of pollution of underground waters

At water delivery superficial waters filter in underground and bear with itself the rests of mineral fertilizers and pesticides. If there is a drain this polluted water gets in the river. If the drain is not present, the polluted water mixes up with clean underground and worsens its quality. Because of it since 1970 stocks of fresh underground waters of Uzbekistan have decreased twice with 700 up to 400 cubic metre per second.

Scientists of Uzbekistan have developed technology of protection of underground waters from pollution (the working name the Ecological Board), created on the basis of coal waste products. The purpose - creation in ground of a layer where there will be an accumulation and processing pollutants. This layer of ground will possess high adsorbing ability to heavy metals, mineral oil, the rests of mineral fertilizers, nitrites and to pesticides. Also here there should be a biological processing pollutants in safe substances.

Laboratory and industrial tests already in the first year have shown encouraging re-

sults. « The ecological Board » detained in the structure up to 20 % of the rests of mineral fertilizers, pesticides from which 65 % decayed up to compound (not dangerous to the person) parts.