



# ECONOMIC CONSEQUENCES AND ENVIRONMENTAL IMPACT OF IMPLEMENTATION OF THE EUROPEAN UNION (EU) NITRATES DIRECTIVE



## Legal framework

During negotiations with the EU on environmental sector Lithuania, after evaluation of agricultural pollution sources, has admitted that the biggest part of the territory is vulnerable to nitrates pollution and agreed to apply the Action Programme for Implementation of the Nitrates Directive in the whole territory of Lithuania.

One of the most important requirements of the Nitrates Directive is that all farms having more than 10 animal units (10 cows that have milk productivity of 5000 kg) have to install manure storage suitable to store the manure not less than six months.

## Lithuanian obligations

During negotiations with the EU on environmental sector Lithuania has obliged to implement requirements of the Nitrates Directive in two phases. First phase action programme will be announced in 2003 year and Lithuania will start to implement it since entering the EU. In the first phase requirements of the Nitrates Directive will be compulsory for all new and present farms (except for manure storage and purchasing of manure spreading technique). The first action programme will oblige to implement the requirements of the Directive on big livestock-farms, on the farms that have severe pollution problems and on the livestock farms that do investments.

After implementation of the first programme, all livestock farms that keep more than 300 AU and the smaller farms performing negative impact on environment will fulfil the requirements of the Nitrates Directive.

During the second phase all smaller farms will be reconstructed too.

## Economic consequences

In Joniskis r. Bariunai agricultural company (AC) a manure storage was installed according to the requirements of the Nitrates Directive and its effect on farm's economy and environment was investigated. The investigation results are generalised to forecast economic consequences for the Lithuanian milk sector and water quality in the rivers.

Milk production in Bariunai AC is unprofitable at current milk buying-up prices and production costs even without building the manure storage. If to build a manure storage with SAPARD programme support, base cost price would increase up to 0.77 Lt. The farm would have losses of 0.1 Lt for each kilogram of milk.

The future of the milk sector will depend on the state support, i.e. direct disbursement for kept cows and its size. Needed minimal disbursement for one cow is 400 Lt. If the state support is not implemented until entering the EU many farms will become bankrupt.

## Environmental impact

Two years water quality investigations showed that groundwater nearby barns is not polluted, but drainage water quality before building of the manure storage was very bad. Concentration of nitrogen and its components exceeded the allowed concentration many times. When the manure storage was installed, concentration of total nitrogen in the drainage water decreased to the concentration allowed for livestock sewage (12 mgN/l) and nitrate nitrogen concentration does not exceed the allowed norm for drinking water (10 mgN/l).

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