Study regarding the NO3 acumulation in the vegetal products

Ana-Maria MOCANU - Universitatea din Craiova

From the modern agriculture research perspective due to several fertilizations with high nitrogen doses and their variable application, all the researches have proved the existence of excessive nitrates accumulation in plants. Considering these circumstanting the absorption to nitrates overdoes the plants assimilation and transformation capacity. These processes speeded up by the existence of unfavorable conditions. The excess of nitrates is not usually toxic for plants. Very often the plants containing excessive NO3 quantities do not stand apart morphologically from those containing normal quantities.(Wright and Davidson-1974). The NO3 become toxically only up to the extend in which they are reduced to NO2 which in specific circumstances may become dangerous even lethal for animal bodies especially those not fully grown.
The transformation of NO3 in NO2 takes place either on the digestive tract or in the very vegetal mass after being harvested and exposed to temperatures over 00C for a longer time. L. Dejeu (1997) states that in the case of excessive nitrogen fertilization the nitrogen ionize accumulates itself in plants in high quantities and the derived products after being ingered may produce rashes especially with children and old people. The author also proves that with grapes the maximum nitrogen concentration admitted 60 p.p.m. With wheat crop a lot of significant changes occur in the protein qualitative composition, the changes being triggered by the increase of nitrogen doses in fertilizers and also by the soil.