

BEST AVAILABLE TECHNIQUES ON THE 'FRUIT AND VEGETABLE PROCESSING INDUSTRY'

The Flemish Centre for Best Available Techniques (BAT centre) is an initiative of the Flemish Region and Vito. The BAT centre collects and distributes information on pollution prevention techniques. Moreover, it advises the Flemish authorities how to translate this information to its environmental permit regulation and to the eco-investment support policy. Central in this translation is the concept 'BAT'. BAT corresponds to the techniques with the best overall environmental performance that can be introduced at a reasonable cost. This document contains an overview of available information on the 'fruit and vegetable processing industry'. Using BAT as guidance, the study proposes

- to the Flemish authorities: permit conditions and techniques for which investment support may be offered because they are favourable to environmental benefit;
- to the Flemish companies: guidelines to implement the concept BAT.

The 'fruit and vegetable processing industry', as described in the study, contains the sectors of 'frozen fruits and vegetables', 'canned fruits and vegetables', 'processed potatoes', 'peeled potatoes' and 'fruit juices'. The most important environmental problems are the use of large volumes of ground water and the production of wastewater polluted with organic carbon, nitrogen and phosphorus.

Information on candidate BAT was mainly obtained from expertise present in Belgium and the neighbouring countries. Over hundred different BAT were selected. The technical and economical feasibility of these BAT was discussed. BAT on wastewater treatment are e.g.:

- primary and aerobic wastewater treatment for small potato peeling enterprises;
- primary, anaerobic and aerobic wastewater treatment, including nitrification/denitrification/defosfatation for larger companies.

Based on the BAT it was concluded that the current Flemish wastewater discharge limits on surface water are technologically and economically feasible. Additional discharge limits for total phosphorus (25-50 mg/l) were suggested. Annual wastewater treatment costs for an average enterprise were estimated to be 15-20 million BEF. For small potato peeling companies, wastewater discharge into the sewers were found to be more appropriate.

Water-saving measures and reuse of water may cause a 25-30 % decrease in the use of ground water. Most of the water-saving BAT are recommended for governmental investment support measures.

Full Dutch version available [here](#) (4866 Kb)

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