

TREATMENT AND VALORIZATION OF WASTEWATER BY THE EPUVALISATION PROCESS

The process named 'epuvalisation' (the contraction of the two french words '*épuration*' (purification) and '*valorisation*') is developed by the [Faculté Universitaire des Sciences Agronomiques de Gembloux](#), Belgium and in particular by the non profit association [Epuvaleau](#).

This process uses low cost and light techniques for the treatment and the valorization of wastewater and has been applied with success in the frame of several E.C. Programs - such as AVICENNE, STD3, INCO and LIFE - in many Mediterranean countries and in Belgium.

Different valuable hydroponic cultures (ornamental plants, vegetables or grass) are specifically used to purify the wastewater with the aim to reuse the treated wastewater for irrigation or to reduce the pathogens (in arid and semi-arid countries) and the pollutants (particularly in the industrialized countries). This technique, used as a tertiary treatment, has the particularity to remove the nitrates and phosphates from the wastewater and reduce the indicators of faecal contamination such as faecal and total coliforms and faecal streptococci.

With the open circuit's technology, the wastewater flows only once along a long channel (20 to 50m).

A closed circuit is used to purify (by depletion) the more heavily charged effluents which often have to be diluted beforehand. A short channel of 10 to 15m is then enough to ensure the treatment.

This appropriate technology : '[Epuvalisation](#)' contributes to improve the water quality and its supply and to reduce the use of raw wastewater for irrigation and the pollution of the drinking water.

REFERENCES

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Vidéo : « projet STD3 N° TS3-CT92-0126, EPUVALISATION »

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