

[This text is a translation from this original article in French:

<https://www.lainagricole.fr/articles/26/12/2019/Dans-l-Ain-les-agriculteurs-contribuent-a-valoriser-les-dechets-menagers-34494/>]

Fertilisation:

In *Ain* (France), farmers help to recycle household waste

The waste treatment plant and about 30 farmers work together to recycle compost from the treatment of organic waste. “This partnership between communities and farmers is a virtuous approach. We start with the waste and in the end, from the trash, we will recover the organic fraction with which we will create energy and organic soil improver to produce again raw material for the soils”, underlines Stéphane Bisensang, plant manager.



Opened in June 2016, the OVADE plant processes and recycles the residual household waste of some 330.000 inhabitants of the department (196 municipalities). Operated by Dalkia Wastenergy on behalf of Organom, it receives each year nearly 58.000 t of residual household waste (sorted and then treated by anaerobic digestion) and 6.000 t of green waste, recycled into biogas and compost for agriculture. A partnership has been initiated with the chamber of agriculture to identify the beneficial effects of compost on agricultural land. “It was important to call on an independent body to validate the quality of the product and reassure the farmers. *“We know our product is good, but we still have to prove it”*”, emphasizes Philippe Soulié, responsible for marketing compost at the OVADE plant.

Superior quality compost

The waste treatment plant uses a unique process (see box) which ensures high product quality. Compliant with standard NFU 44-051, the compost produced on the Viriat site is rich in organic matter. The Ain Chamber of Agriculture is in its third campaign of trials, carried out on crops of corn, wheat and rapeseed, on a plot of Gaec de Chareyziat, in Saint-Etienne-du-Bois. Associated with her uncle, Stéphanie Chaverot, on a dairy, cattle, meat and cereals farm gives us her opinion on the value of compost: *“The tests are carried out on a plot in high demand because it is close to the farm. These are white silts, a very light soil that needs organic matter. Twenty tons of compost are spread per ha and per year by Cuma du Châtelet in August, before cultivation. Right now, it's rapeseed. With compost, we see better plant vigor. We've seen it especially on wheat. What we hope for in the long term is an improvement in soil structure and fertility. There is also an effect on yield, that's obvious”.*

Demonstrated agronomic advantages

“The soil analysis campaign, scheduled for early 2020, will confirm the evolution of agronomic parameters. The objective is twofold: the nutrition of the plant and fertilisation (use less fertiliser) and to see over the medium term how the structure of the soil evolves (biological dynamics). The first two years of trials have shown that adding OVADE compost, alone or in addition to adding mineral fertiliser, significantly increases yield. A long-term investment, but profitable from the first year,” explains Jean-Marc Contet, head of the Agronomy Environment team at the Chamber of Agriculture.

The compost is marketed under the “Compovade” brand by the CAPDis cooperative.

Thirty-two members used it in 2019. Sold at a price of € 6 (excl. tax) per ton *ex works*, it is spread by Cuma du Châtelet in Saint-Etienne-du-Bois or by a contractor of his choice. The recommended volume is 20 tons per ha every two years (variable depending on the actual needs of the soil).

“This partnership between communities and farmers is a virtuous approach. We start from the waste and in the end, from the trash we recover the organic fraction with which we create energy and organic soil improver to produce again raw material for the soils”, underlines in conclusion Stéphane Bisensang, director of the OVADE factory.

A unique process in the world

The recipe for good compost: organic matter extracted from the digester, to which shredded green waste is added to allow aeration in composting. The mixture is then matured for 8 weeks, then stabilised, refined and analysed before being sold. What sets the OVADE plant apart is its digestate washing unit [*cf. SORDISEP*] which removes undesired elements. This process of wet separation and optimal removal of inert materials and sand is being applied for the first time in the world on an industrial scale. It guarantees superior quality compost.

The strengths of "Compovade"

- Better resistance to soil compaction and erosion by increasing the stability of aggregates;
- Easier to work the soils due to the increase in their plasticity limit;

- An increase in the useful soil reserve making it possible to limit irrigation needs;
- Sustainable improvement of the soil structure;
- Optimisation of chemical fertiliser consumption;
- OVADE's compost is characterised by its very low rate of inert materials and impurities, far below the thresholds required by the standard. It provides about 200 kg of humus per ton. The regular contributions of compost increase in the medium term the organic matter content of the soils, the biological activity and the biodiversity and improve the physical properties of the soils.

The agronomic quality in figures (for a contribution of 15 t/ha): total nitrogen: 129u, phosphorus: 77u, magnesium: 78u, potash: 110u, lime: 722u, OM: 3750 kg, C/N: 15, pH: 7.9, dry matter: 53%.