

ORGANIC WASTE: POSITIVE-LIST FOR HIGHEST COMPOST AND DIGESTATE QUALITY

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1 OBJECTIVES

Half of the raw material for compost and digestate production stems from publicly run household collections (Figure 1). One third is generated by private companies (notably horticultural and landscaping concerns). Often their characteristics are not well-known.

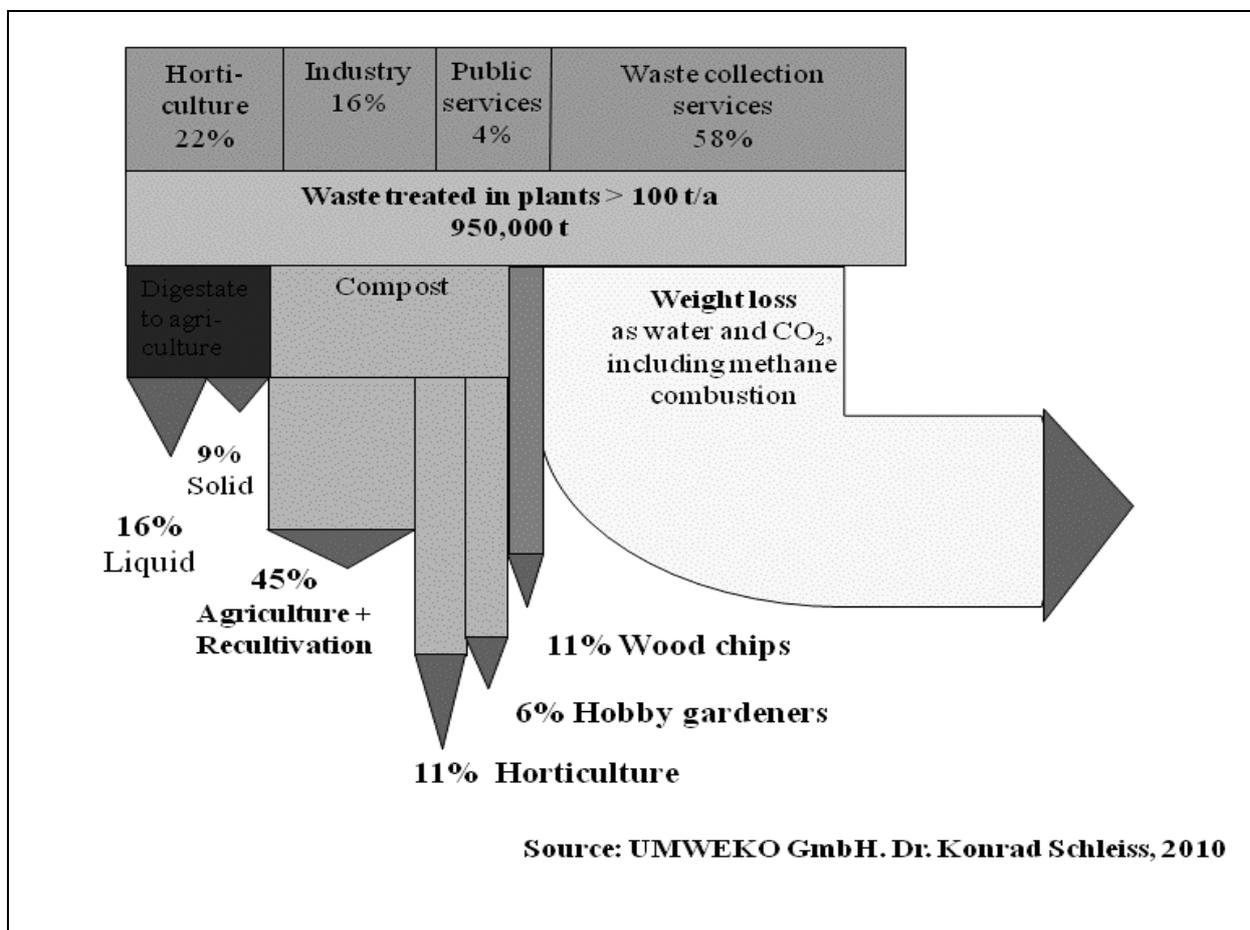


FIGURE 1 Biowaste in Switzerland: Origins and end-use 2008 (Schleiss, 2010)

Compost and digestate must be quality products if they are to be used in agriculture and horticulture (Figure 2). The quality of the end-products compost and digestate is critically affected by the raw material that is to be processed. The rotting process must be fully completed; both compost and digestate must not contain excessive amounts of toxic substances.



FIGURE 2 a) A clean compost place - guarantor for high quality (Hönggerberg , Photo: Gerber, ETHZ);
b) A small digestate plant near Berne, Switzerland (Walterswil, Photo: Schleiss, UWEKO).



FIGURE 3 Undegradable material must be excluded

2 THE POSITIVE-LIST

Frequently, composting facilities have insufficient agronomic knowledge to assess the raw materials destined for composting or fermentation. In recent years, a Positive-List for Swiss circumstances with primary raw materials has been compiled (Siegenthaler Albrecht, 2005). It contains all green wastes that are compostable or fermentable, together with other Positive-List base materials. It is designed to assist the facilities' operations regarding acceptance of materials (Inspektoratskommission der Kompostier, 2006). The List is 'open', i.e. it can be supplemented or amended at any time.

When creating a Positive-List, it is important to note that only decomposable organic material is taken into consideration. Materials that is difficult to rot like undegradable substances or chemicals as well as mineral substances must be excluded. Moreover, it is also crucial to exclude waste containing heavy metals (Hg, Cd, Pb, etc.) or contaminated with organic harmful substances (PCB, PAK, etc.) from the List. Aspects of hygiene (animal wastes, etc.) should also be considered (Figure 3). For its compilation, an interdisciplinary team composed agriculturists, of experts from agriculture, biology and waste management is essential.

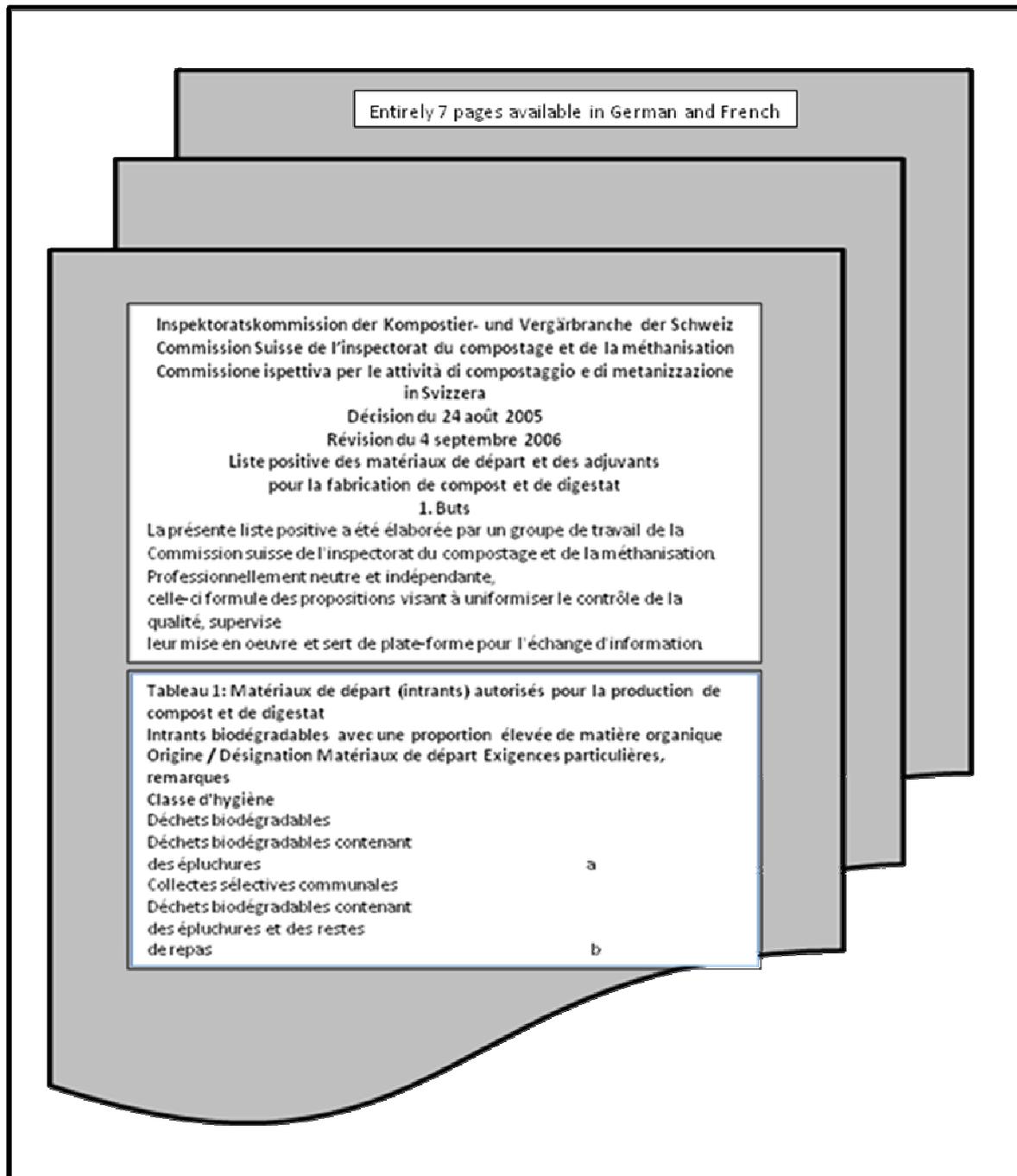


FIGURE 4 The Positive-List (the first page)

In practice, the corresponding associations (Kompost- und Vergärwerke Schweiz VKS, Kompostforum Schweiz, biosuisse, ch) mainly addressed the List of substances fully and have proven its worth. The full List (in German and French) is available at: http://www.vkssic.ch/acrobatreader/PosListe_Gruengut_06-09-04.pdf

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