

Checklist for the determination of biomass and energy potential

To calculate the energy potential of the project and to assess the suitability of biomass for anaerobic digestion or as biomass fuel but as well as for compost production and fertilizer value; we ask for a list of all organic residues and wastes which are accumulated or available in the area of the project.

It is Important the detailed description of the substance, its origin and the current recovery, or disposal route

If any organically highly polluted wastewater from (no domestic sanitary sewage) available, it could also be listed.

1. Description / Origin / Type of Biomass

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2. Quantity available

- per Year
- per Week
- per Day
- How continuously is the material available? Are there seasonal fluctuations, e.g. only on specific days or weeks, etc.

3. Composition of the substances

- Dry matter (DM) or humidity, Organic dry matter (ODM), content of ash
- Composition of organic dry matter, in particular:
 - ⇒ Carbohydrates (NFE), as % of DM or g/kgDM
 - ⇒ Fat, as % of DM or g/kgDM
 - ⇒ Crude Protein, as% of DM or g/kgDM
 - ⇒ Crude Fiber, as% of DM or g/kgDM

These values will be usually analyzed with a feeding stuff analysis (Weender analysis method or expanded feed stuff analysis).

- Other ingredients and nutrients, like:
 - ⇒ Content of Nitrogen (as total N, TKN, NH₄-N), as % of DM or mg/l
 - ⇒ Content of Phosphorus (P₂O₅), as % of DM or mg/l
 - ⇒ Content of Potassium (K₂O), as % of DM or mg/l

- ⇒ Content of Sulfate, as % of DM or mg/l
- ⇒ Content of Chloride, as % of DM or mg/l
- ⇒ Content of Magnesium, as % of DM or mg/l
- ⇒ Content of Calcium, as % of DM or mg/l
- ⇒ Heavy Metals and Trace Elements (Pb, Cd, Cr, Cu, Ni, Hg, Zn, Fe) as mg/l

These values will be usually analyzed with fertilizer analysis or sewage sludge analysis.

- Electrical conductivity, in μS ; optionally salt content
- pH-Value
- Other relevant features
- For waste water additional COD and BOD₅

4. Source of the materials, means where or on which process is the material accrued (e.g. fruit pulp from the press, flotation sludge from a particular waste stream, green waste from park maintenance, food waste from kitchens, poultry manure from battery hens or broiler, etc.)

5. How is the material currently utilized or disposed? How are the costs or and which revenues will be achieved

As more accurate the information is, as better will be the accuracy of our estimation. If original analysis data are already available, please attach. If not, the analysis has to be provided. On well-known substances, such as for example manure, it's sufficient to indicate the nature or origin, and the DM / ODM content. In case of wood please indicate the nature and the residual moisture.

Based on the given data we could define if or which material is suitable for the Biogas production as solid Bio-fuel or for the Compost process.