

Composting Facility in Sarabetsu Village

The goal of agriculture in Sarabetsu Village

- Promotion of upland agriculture
- Promotion of “clean agriculture”
- Soil improvement program
- Training and securing of breadwinner and successor of agriculture
- Promotion of dairy farming

Feature of Agriculture in Sarabetsu

- Volcanic ash soils with low pH
- Hilly area of Hidaka Mountain Range
- Lower temperature
- Soil fertility is lower than the central part of Tokachi plain
- Lower crop yields
- Large farm area (43 ha)
- Decrease in dairy farmers

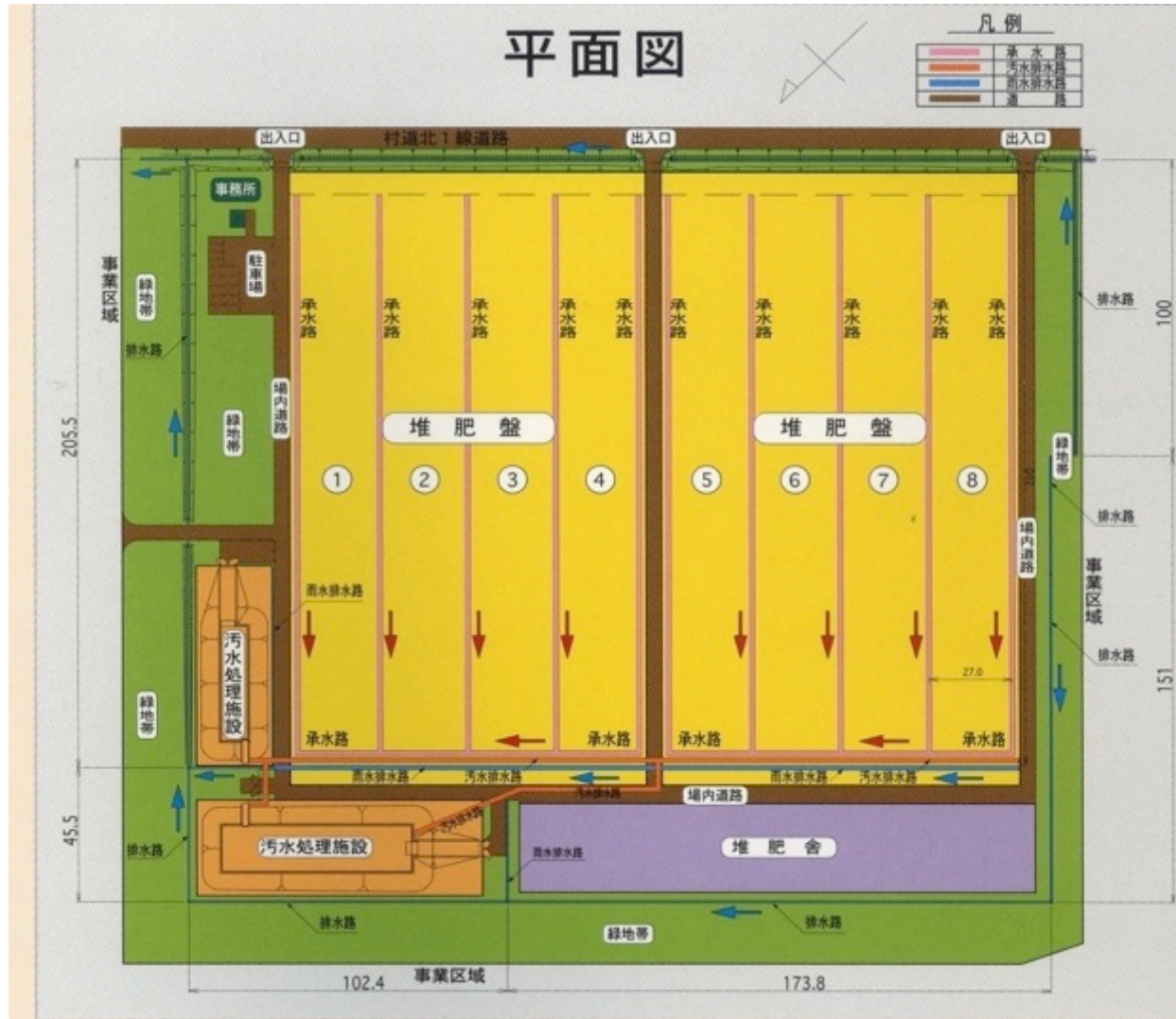
Compost producing project

was initiated in 1989 to tackle the disadvantages for the agriculture in Sarabetsu village.

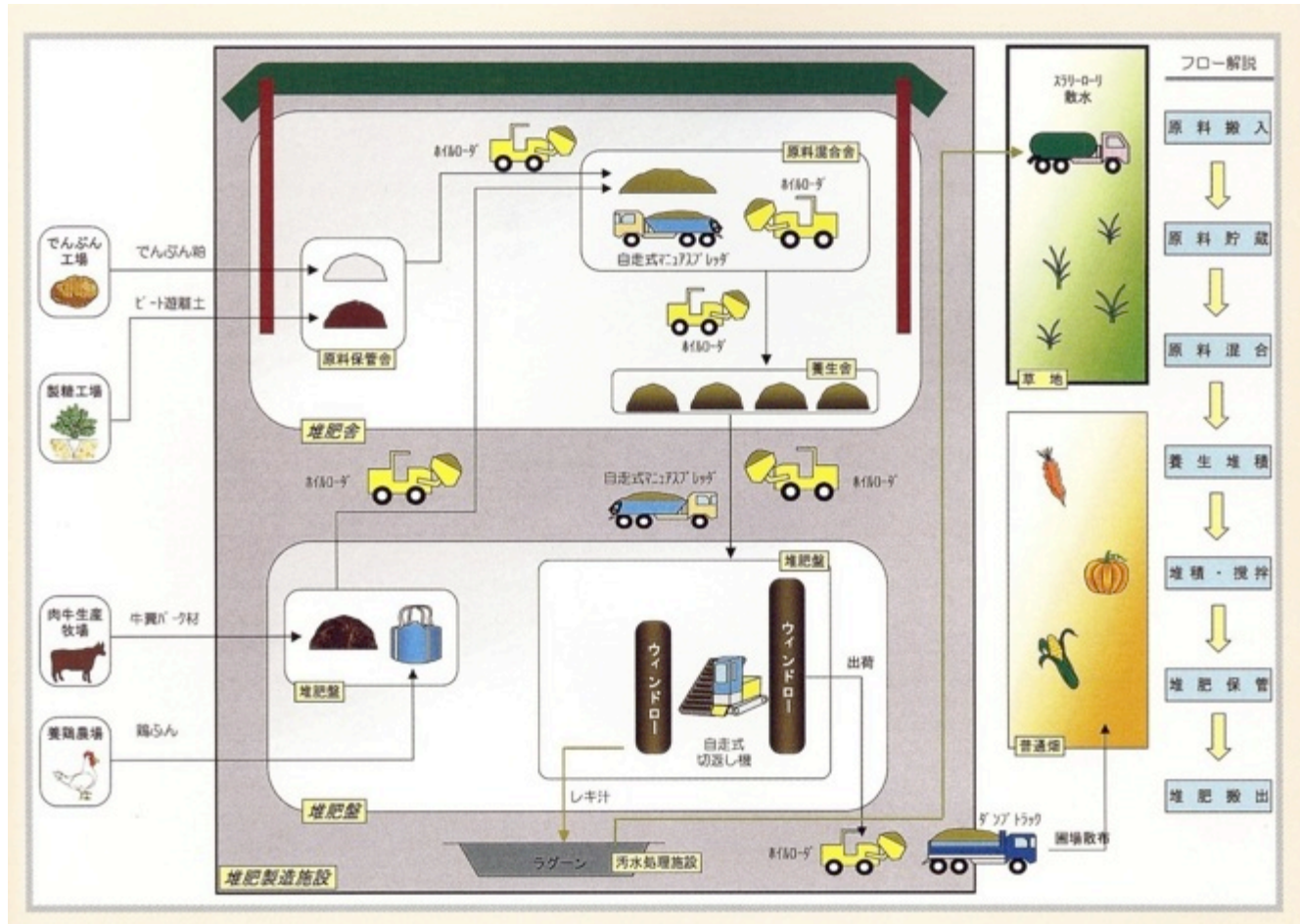
Bird View of Composting Facility in Sarabetsu



Plain view of composting facility



Flow of compost making



Composition of raw materials

- Soil from beet: 7.5%
- Potato pulp: 7.5%
- Chicken dropping: 10%
- Bark mixed with cattle manure: 75%

Raw materials



Soil removed out from beet. Piled in open field for drying.

Soil from beet washing



Cause injury to crops if
directly used without
sterilization



Chicken droppings



To increase
fermentation
temperature

Potato pulp



Industrial
waste from
potato starch
company



Bark mixed with cattle manure



Used as main
feedstock of
the compost

Machinery for turning



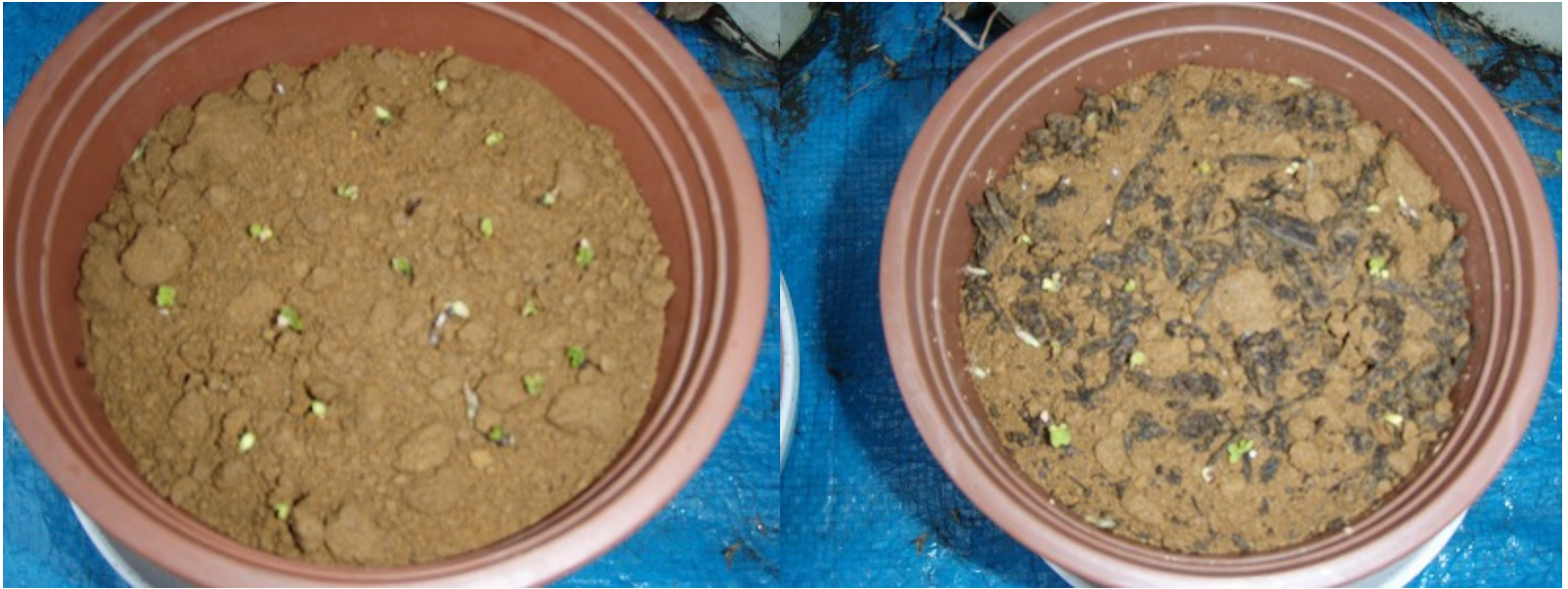
transporting

Turning Machine in operation

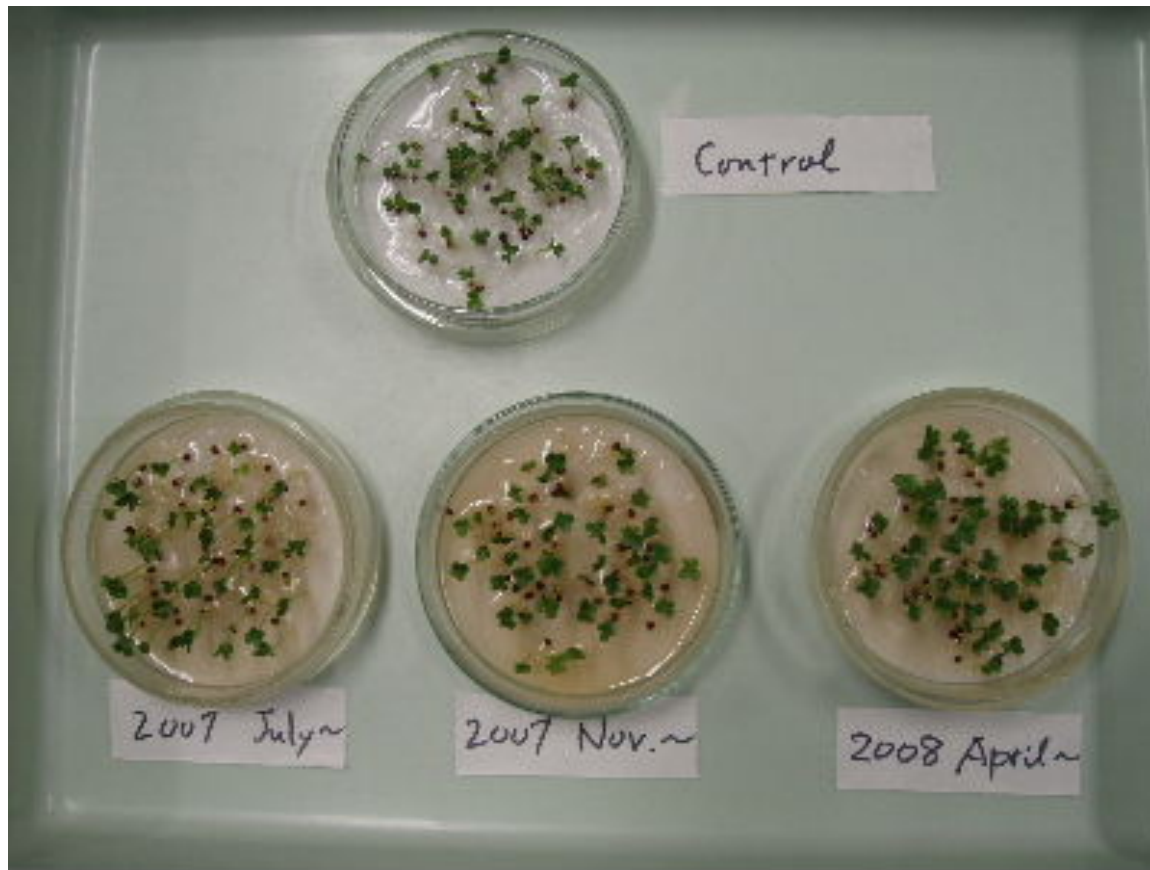




Seedling growth test



Germination test



Time schedule of composting

- Start 3 times a year.
- April, July, November
- Duration of composting: 1 year
- Frequency of turning compost:
ca 8 times a year.
- Volume of compost decreases to 65 % .
- Total amount of produced compost:
30,000 t

Beneficially Farmers

- 100 farmers in Sarabetsu village
- Applicationrate: 30 t / ha
- When do they apply?
- After harvesting wheat. August or September.
- Farmer grow beet after wheat.

Order of rotational cropping

- Wheat
- Beet
- Beans (Red bean, Soybean, Kidney bean)
- Potato

Compost is applied after wheat & before beet.

Agricultural fields in Sarabetsu



Taisho-Kintoki (Red Kidney bean)



Winter Wheat



Ootebou (White Kidney bean)



Ootebou and Sugar beet

Agricultural Products in Sarabetsu



Sugar beet and potato
(still small in July)



Beans and Wheat



Starch and beans

Beneficial effects of compost

- Chemical fertilizer can be reduced
- Trace elements are supplied
- Soil acidity is ameliorated
- Soil aggregate structure is formed
- Drainage and aeration are improved
- Soil temperature is increased