

# Composting Facility in Sarabetsu Village

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# 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

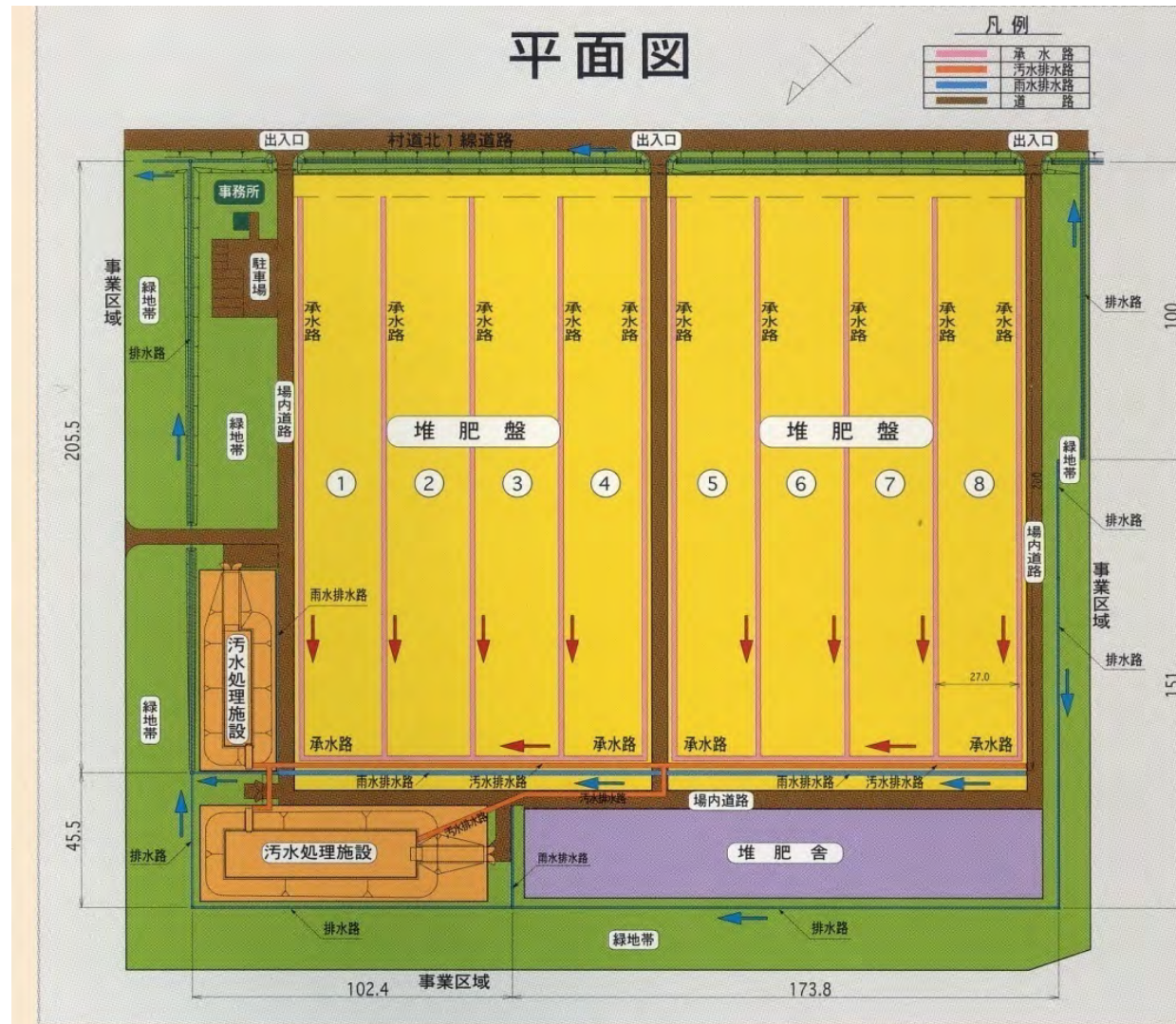
# Feature of Agriculture in Sarabetsu

- 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

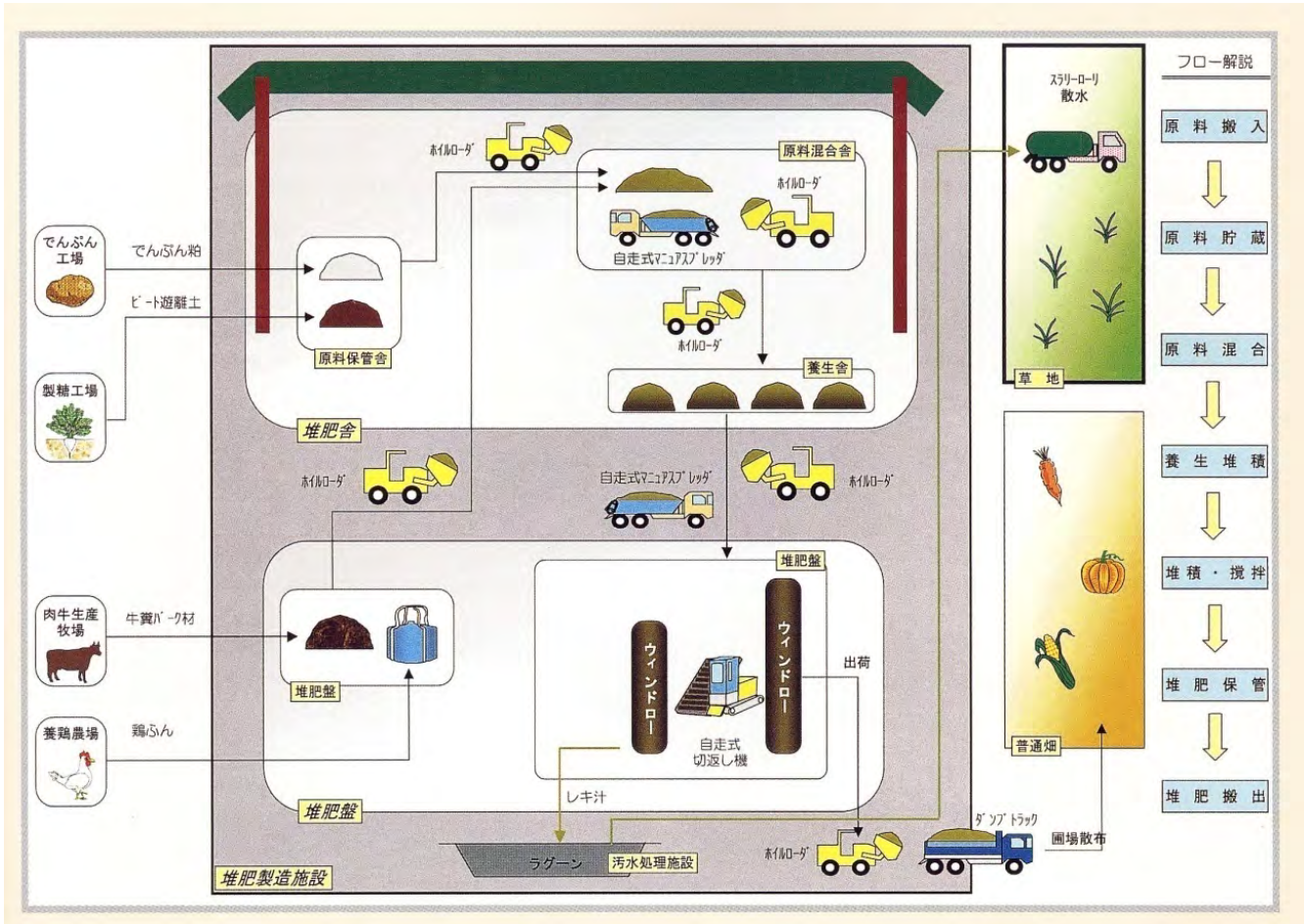
# Bird View of Composting Facility in Sarabetsu



# Plain view of composting facility

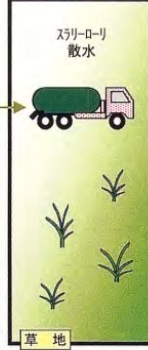






フロー解説

- 原料搬入
- ↓
- 原料貯蔵
- ↓
- 原料混合
- ↓
- 養生堆積
- ↓
- 堆積・攪拌
- ↓
- 堆肥保管
- ↓
- 堆肥搬出

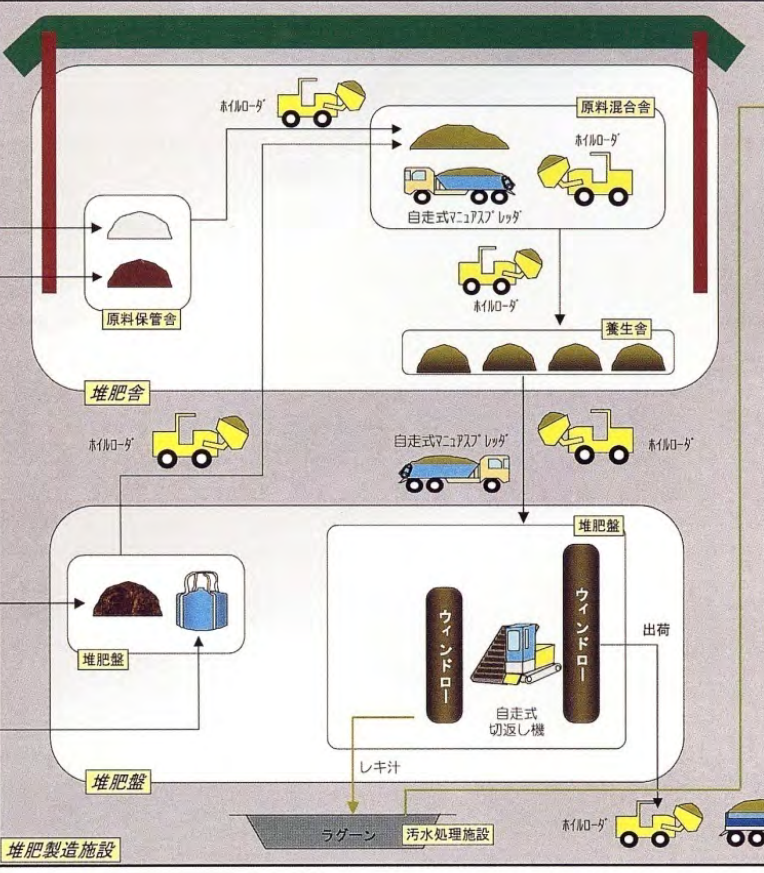


でんぶん工場  
でんぶん粕  
ビート遊離土

製糖工場

肉牛生産牧場  
牛糞パルク材

養鶏農場  
鶏ふん



スリローリ 散水  
草地

普通畑

ダンプトラック 圃場散布

堆肥製造施設

# 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

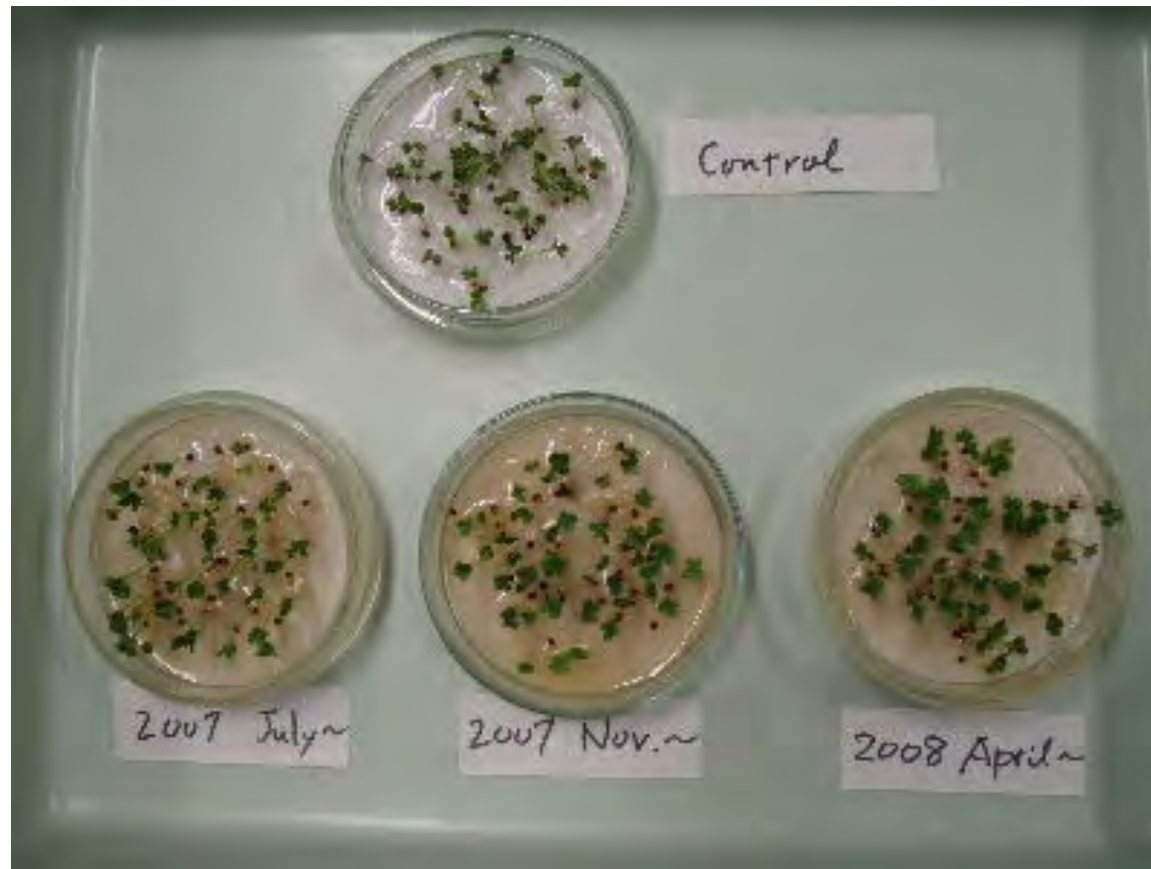




# Seedling growth test



# 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