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
• Application rate: 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