

Materials for the JICA on-site training in FY 2016

(Tokachi General Subprefectural Bureau Southern Cultivated Land Branch)

1. Area overview

™ Name of the project: Project for Infrastructure Development of Grassland Animal Husbandry
Grassland Development Type (Project for development of public stock farm)

™ Area: Obihiro area

™ Construction period of the project: From 2009 to 2017

™ Location: Obihiro City, Kasai-gun, Memuro-cho

™ Area that receives the benefit: 988.0 ha

™ the number of houses that receive the benefit: 36

™ Total cost of the project: 949 million yen

™ Project volume

Development and improvement of grassland	443.3ha
Preparation and improvement of grassland	0.5ha
Preparation and development of land for facilities	one site
Development of stockade	15,430m
Development of livestock shelter	one shelter
Development of the facility for adjusting and storing forage	one facility
Development of the facility for hygiene maintenance	one shelter
Development of facilities preliminary to pasture	one site
Development of the facility for treatment of livestock wastes	two facilities
Development of stock farm machinery	two machines

™ Purpose of the project

- The dairy farmers in this area have been making up for labor shortage and acquisition of forage due to the scale expansion of their business by depositing their growing cattle to the public stock farm. However, the capacity of the existing public stock farm has reached its limitation. Therefore, an increase of deposit by prompt development including scale expansion of the facilities leads to a solution of the issues of this area.
- In addition, improvement of grazing capacity of the public stock farm including the yield per unit area and the self-sufficiency rate of forage by development in infrastructure of forage production will enable an expansion of deposit in winter. As a result, the management of animal husbandry in this area will be stabilized.

2. The number of livestock reared in the public stock farm

Depositing period	Number of livestock accepted	Depositing period (days)	Price of depositing		Note
			Unit price (yen / head)	Price (thousand yen)	
Summer (pasturing)	1,630	150	220	53,800	From mid-May to mid-Oct.
Winter (rearing in the shelter)	735	215	520	82,200	From late Oct. to early May
Total	2,365	365		136,000	

3. Training contents

Smoothing uneven grassland (Smoothing uneven ground I), and about the facilities used in the stock farm

Grassland Development Obihiro Area 1st section Construction Overview

Construction work number : 1005

Name of construction work : Grassland development Obihiro area 1st section

Location of construction : 185-1 Nishi 4-sen Yachiyo-cho,
Obihiro

Construction overview :

- Facility for treatment of livestock wastes	(No. 2 compost shed)	1 unit
- Facilities preliminary to pasture	(Paddock)	1 place
- Facility for hygiene maintenance	(Hygiene maintenance shed)	1 wing
- Farm animal protection facility	(Cattle shed for growing)	1 unit of accessory work
- Preparation and development of land for facilities		1 unit

Construction period: April 26, 2016 - November 30, 2016

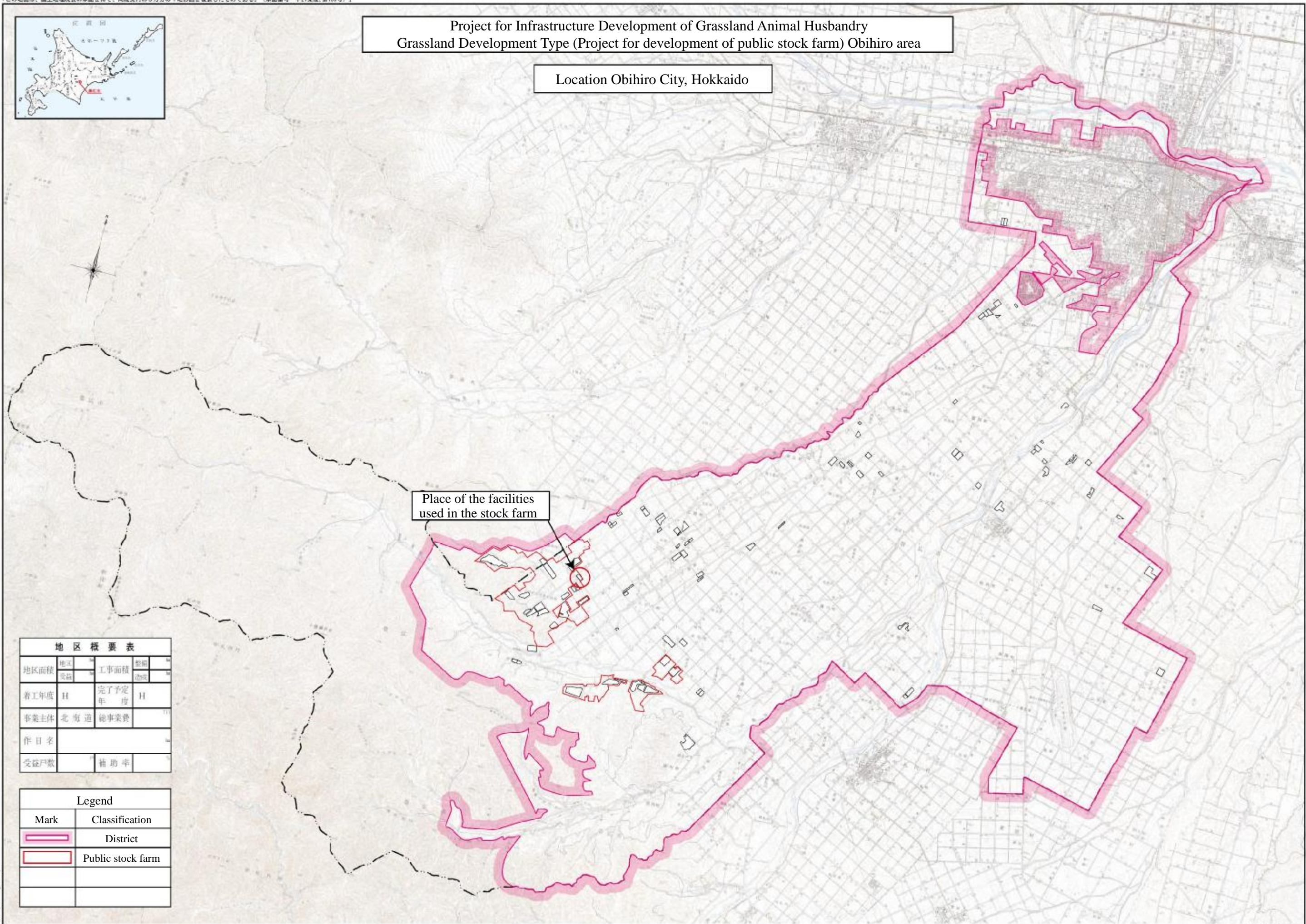
Contract amount: 155,498,400 yen

Contractor Fujiwara Kogyo K.K.
On-site representative: Yasuhito Kaki
Managing engineer: Yasuhito Kaki



Project for Infrastructure Development of Grassland Animal Husbandry
Grassland Development Type (Project for development of public stock farm) Obihiro area

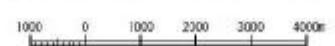
Location Obihiro City, Hokkaido



Place of the facilities used in the stock farm

地区面積	地区 受給	工事面積	整備 地区
着工年度	H	完了予定 年度	H
事業主体	北海道 総事業費		
作日名			
受益戸数	補助率		

Mark	Classification
	District
	Public stock farm



Overview of the facilities used in the stock farm

[the purpose of using the stock farm]

Rearing of growing cattle for both meat and milk by depositing (pasturing in summer / rearing in the shelter in winter)

[Need for the facilities]

In order to cope with the future plan for an increase in the production of milk and the increasing demand of depositing by farmers due to a steep rise in the price of compound feed, the capacity of the facilities, which at present is insufficient, will be developed.

[Explanation of each facility]

™ Livestock shelter (shed for growing cattle)

This is the shelter to accommodate growing cattle

* In general, "growing cattle" is the name for cattle in the period from the weaning to the first calving.

™ Facility for treatment of livestock wastes (compost house)

This is the facility for treatment to compose waste equipped with a fermenting vat for treatment of livestock waste, which is to decompose raw excrement and urine carried from the shelter by cutback and aeration until they turn into farmyard manure or liquefied manure.

™ Facility for adjusting and storing forage (bunker silo)

The bunker silo is the facility for adjusting and storing forage to make grass silage or corn silage, whose shape is horizontal with concrete walls and floors. In a silo, raw materials are sealed up and stored in anaerobic condition to make superior quality silage with little nutrient loss by lactic acid fermentation. The bunker silo is installed in order to improve ability of animal husbandry, land productivity, and self-sufficiency rate of forage by stable adjustment and storage of the good quality silage.

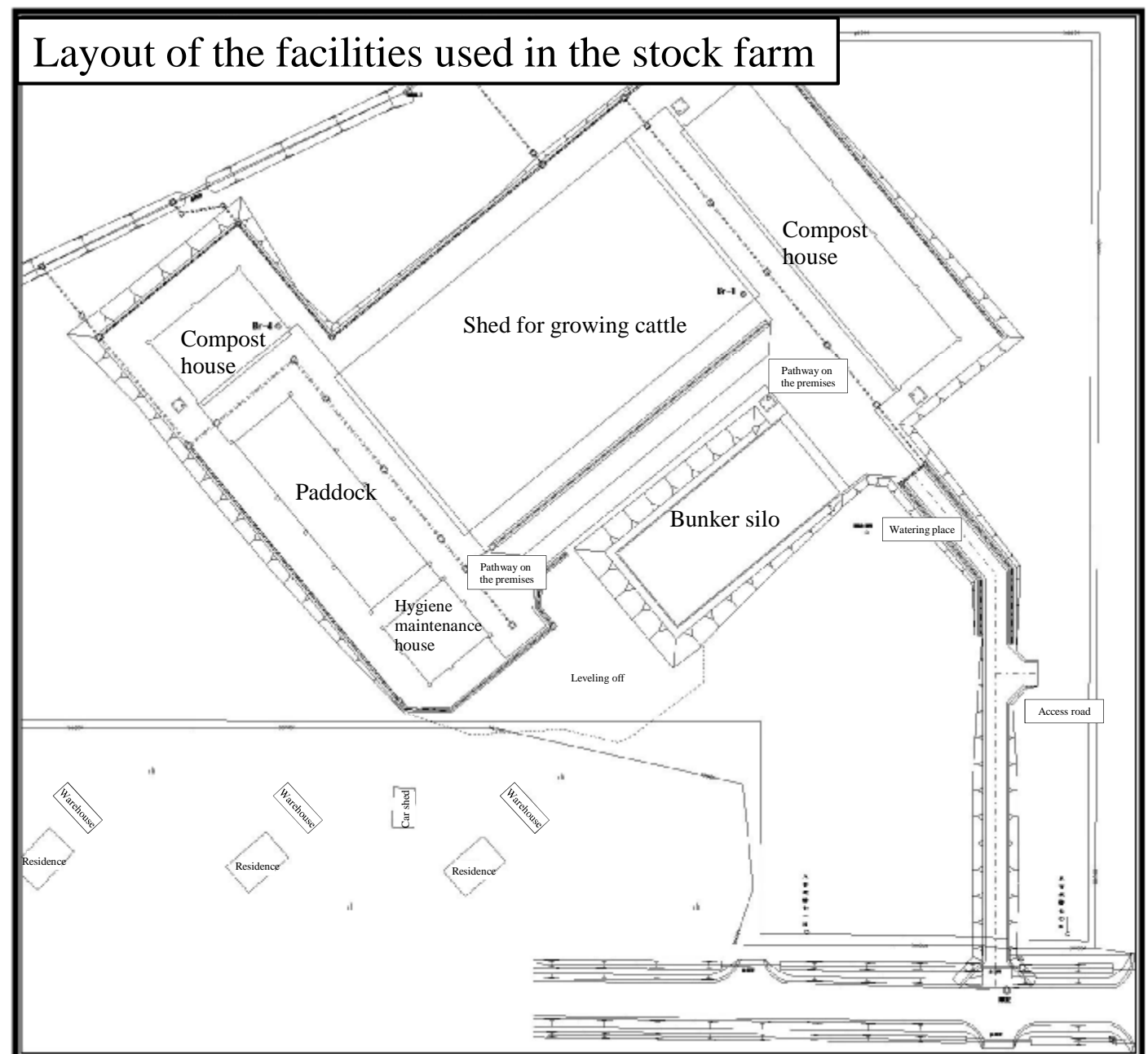
* Silage: grass that is packed in a silo and fermented by lactic acid.

™ Facility of preliminary to pasture (paddock)

This facility has various purposes, including exercise of cattle, stress relief, and adaptation to environment. Sudden grazing of cattle that had been reared in the shelter may hinder the growth of the cattle because of environment change. Therefore, cattle grow accustomed to the pasture environment and forage condition in this facility.

™ Facility for hygiene maintenance (hygiene maintenance house)

This facility is installed for medical treatment, disease prevention, and hygiene maintenance of cattle.



Shed for growing cattle



Bunker silo



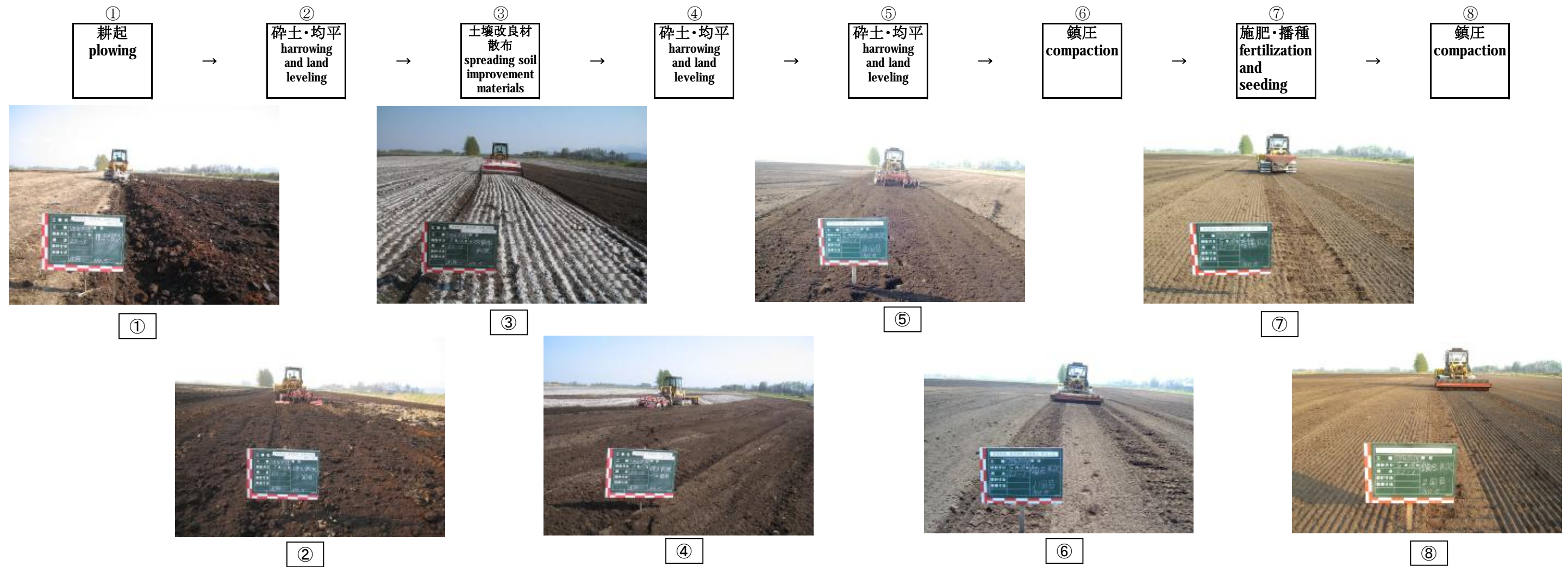
Compost house



起伏修正 I 作業の流れ

smoothing uneven ground I work process

起伏修正 I : 草地管理用機械の作業効率化、地表水の停滞防止、牧草地の利用率の向上を目的とし、地形上の小じわ等の不陸を均す作業。
 Smoothing uneven ground I : the work of leveling off unevenness including creases of landform, which aims to improve work efficiency of machines for maintaining grassland, prevent stagnant surface water, and increase usage rate of grassland



- ① 耕起 : 地表植生の根茎部の切断破碎、反転すきこみ作業
 plowing : cut and crush the roots of vegetation on ground and reverse them
- ② 砕土・均平 : 耕起された土塊の破碎、播種床の状態を良くする作業
 harrowing and land leveling : ブレードによる不陸均し作業
 crush the plowed soil and improve the condition of seed bed.
 Level the ground with a machine
- ③ 土壌改良材散布 : 酸度矯正、欠乏養分補給の土壌改良を目的とした土壌改良資材の散布作業
 spreading soil improvement materials : neutralize and spread the materials to improve soil by supplying nutrient
- ④⑤ 砕土・均平 : 土壌改良資材のすきこみ、土壌混和し整地を行う作業
 harrowing and land leveling : insert soil improvement materials and mix and smooth the soil
 土壌改良資材の混和が1回では不完全なため、砕土整地2回掛けとしている。
 it is not enough to mix the materials only once, therefore smooth crushed soil twice.
 ブレードによる不陸均し作業
 level the ground with a machine
- ⑥ 鎮圧 : 表土の膨軟状態を解消し、牧草種子の着床と発芽率を高めるための作業
 compaction : smooth(level) the spread of surface soil and increase the rate of implantation and germination of grass seed
- ⑦ 施肥・播種 : 牧草の初期成育に必要な肥料及び牧草種子の散布作業
 fertilization and seeding : spread grass seed and necessary manure for the first growth
- ⑧ 鎮圧 : 土壌との密着、覆土効果により発芽着床を良くするための作業
 compaction : settle down soil by pressure and improve germination and implantaion by the effect on soil covering

工事前
before construction



工事を実施すると・・・
carry out construction...

工事後
after construction



うまそ〜っ
looks good

