## 2.5 Theses

## (1) Doctor's Thesis

#### **Division of Arid Land Environment**

# Subdivision of Natural Environment

Zhou Jian-zhong: Climatological Studies on Productivity of Livestock Farming and Agriculture in the Inner Mongolia Autonomous Region of China

### **Division of Biological Production**

## Subdivision of Plant Ecophysisology

*Matsuura*, A.: Mechanisms of interspecific differences of vegetative growth response to soil drying in the three gramineous crops

### **Division of Afforestation and Land Conservation**

### Sub division of Land Conservation

*Naruoka, M.*: Efficient Water Application of Supplemental Irrigation and Two-dimensional Capillary Supply of Drip Irrigation in Upland Field

Yokotsuka, A.: Characteristics of Plant Growth and Soil Water on Artificial Bed Soil in Sparse Vegetation Areas

# (2) Master's Theses

### **Division of Arid Land Environment**

### Subdivision of Natural Environment

*Ishikawa*, *M.*: Studies on purification of seawater using solar distillation and soil-atomosphere heat exchange distillation

Kimura, R.: Studies on the aerodynamics and energy balance of crop field

#### Subdivision of Water Resources

Sagawa, Y.: Agricultural use of super-water-absorbent polymer.

*Hayashi*, N.: Measurement of soil moisture and soil salinity by TDR method.

Miyamoto, K.: Effect of irrigation water salinity and environmental conditions on transpiration.

Feyisa, M.R.: Improvements of furrow irrigation performance.

# **Division of Biological Production**

# Subdivision of Plant Ecophysiology

Amiya, T.: Evaluation of bioassay to search for inhibitor of leaf elongation derived from roots under soil drying

#### Subdivision of Plant Production

Ochiai, E.: Fundamental studies on development of afforestation in the Kubuqi Desert in China

Fujii, E.: Fundamental studies on tolerance of salinity for flower

### **Division of Afforestation and Land Conservation**

### Subdivision of Revegetation and Grassland Development

Yamanaka K.: Effects of salt spray from the sea on growth and shapes of Japanese Black Pine on sand dunes.

#### Subdivision of Land Conservation

*Nishio*, *T.*: Studies on subsurface microirrigation in a sandy field.

Karatu, H.: Simultaneous measurement of salt and water in unsaturated sand column.

# (3) Graduation theses by undergraduate students

### **Division of Arid Land Environment**

#### Subdivision of Natural Environment

Tasumi, M.: Microclimate and water balance of lawn grass

Matsuoka, K.: Studies on the spectral reflectance of mixed surface

Yanagidani, T.: Radiation and temperature circumstances of recycling use paper mulch

#### Subdivision of Water Resources

Oba, T.: Consumptive use of water of soybeans in Ando soil

Miki, H.: Consumptive use of oranges

# **Division of Biological Production**

# Subdivisoin of Plant Ecophysiology

Arita, K.: Purification and characterization of L-Tyrosine decarboxylase in cultured shoots of Stephania delavavi

*Ikehashi*, *M*.: Selection of salt-tolerant cultured roots of tobacco and cultured shoots of *Stephania delavayi* 

*Hayashi, C.*: Time course analysis of effects of sodium and calcium on radicle elongation rate of soybean *Yamamoto, Y.*: Effect of plant hormones on growth of cultured roots of tomato under low temperature

### Subdivision of Plant Production

Arai, S.: Studies on the way of irrigation for cultivation of Baker's Garlic

Odaira, H.: Effect of microorganism culture solution on growth of Phalaenopsis

Kosaka, T.: Studies on water control on sand bed

Matumura, K.: Studies on irrigation control of plants on road

*Ochiai, M.*: Purification and characterization of L-tyrosine decarboxylase from cultured roots of *Stephania cepharantha* 

### **Division of Afforestation and Land Conservation**

# Subdivision of Revegetation and Grassland Development

**Nasuno T.**: Stand structure of *Robinia pseudo-acacia* forests on sand dunes and effects of cutting season on sprouting characteristics.

Niitani T.: Water and nutrient dynamics and growth of Quercus serrata

#### Subdivision of Land Conservation

Sugimoto, F.: Effect of super moisture absorbent fiber under irrigation condition in a sandy soil

Hirabayashi, H.: Distribution of water and salt in sloped field under sand mulching on artificial bed soil

Yoshinaga, M.: Simultaneous transfer of heat, water and solute in a closed soil column -Estimation of

h	eat transpo	rt parameter	under soil te	emperature g	radient, and	prediction of	water and sa	lt movement-