# 3.2 Research Projects

### **All Divisions**

Basic studies on the establishment of plant production system using sea water in the coastal arid land Funded by COE program

# **Subdivision of Natural Environment**

	Studies on the wind climate and the sand movement in the Tottori Sand Dune
	Allocation from the University Funds
	Analysis of ground surface information by remote sensing
	Allocation from the University Funds
	Studies on the effect of water retentivity and thermal variation under soil surface mulching
	Allocation from the University Funds
	Comparison of the climate between urban and suburb areas
	Allocation from the University Funds
	Studies on the modification of the microclimate of the agricultural fields
	Allocation from the University Funds
	Analysis of ground surface information by remote sensing in arid land
	Allocation from the University Funds
	Researches on lightning and precipitation
	Research of Requisition
	Studies on the agricultural water management to promote sustainable agriculture in arid lands
	Monbusho Grant-in-Aid for Scientific Research A(1)
	Design of the atmospheric vapor distillator in arid regions
	Monbusho Grant-in-Aid for Scientific Research A(1)
	Systematization of upland irrigation planning based on the actual usage of water in fields
	Monbusho Grant-in-Aid for Scientific Research A(1)
	Development of efficient irrigation schedules and soil salinity monitoring system in productive green land
	Monbusho Grant-in-Aid for Scientific Research A(2)
Sı	ubdivision of Water Resources
	Movement of salt and water due to water uptake by plant roots
	Allocation from the University Funds
	Design and water management of micro irrigation
	Allocation from the University Funds
	Estimation of crop consumptive use of water
	Allocation from the University Funds
	Establishment of soil moisture measurement methods
	Allocation from the University Funds

Development of technology for rehabilitation of salt accumulated soils in the Central Asia

Grant-in-Aid from Environment Agency

Soil and water properties for effective water management

Allocation from the University Funds

Prevention of soil erosion in surface irrigation method

Allocation from the University Funds

Studies on water management for sustainable irrigated agriculture in Pakistan

Monbusho's Grant-in-Aid for JSPS Fellows

#### Subdivision of Plant Ecophysiology

Development of plant production system using sea water
Monbusho Grant-in-Aid for Scientific Research B
Effect of root zone temperature on root growth
Allocation from the University Funds
Development of non-destructive measuring systems for root growth based on AE method
Allocation from the University Funds
Physiological mechanism of wheat on deep-sowing tolerance
Allocation from the University Funds
Search for germination stimulant of parasitic weed Striga
Allocation from the University Funds
Search for potential plants from semi-arid regions
Tottori Industrial Technology Association
Selection and characterization of salt-tolerant plant cells
Saneyoshi Scholarship Foundation
Isoquinoline biosynthesis in Menispermum root cultures
Kampou Science Foundation

#### **Subdivision of Plant Production**

Studies on crop tolerance to water deficiency and salinity
Allocation from the University Funds Apr.,1996 ~
Studies on practical aspects of melon cultivation on a sandponics bed system
Allocation from the University Funds Apr.,1996 ~
Growth promoting effects of extract from scallions
Allocation from the University Funds Apr.,1997 ~ Mar.,1998
Control of flower bud abortion in Cymbidium
Allocation from the University Funds Apr.,1997 ~ Mar.,1998

### Subdivision of Revegetation and Grassland Development

Dynamics of Pine trees on sand dunes Allocation from the University Funds Tree growth, and nutrient and water dynamics of trees and in the soil Allocation from the University Funds Growth and reproductive characteristics of woody plants Allocation from the University Funds Ecological studies on sand dune vegetation Allocation from the University Funds Maintenance mechanisms of plant communities in arid areas Allocation from the University Funds Land use and regeneration mechanisms of woody plants in semi-arid areas of east China Nippon Life Insurance Foundation

## Subdivision of Land Conservation

Development of efficient irrigation schedules and soil salinity monitoring system in productive green land

#### Research Projects

Monbusho Grant-in-Aid for Scientific Research A(2) Development of non-destructive measurement of salt movement during salt accumulation and leaching and soil texture, water level and cultivation Monbusho Grant-in-Aid for Creative and development research program Studies on water quality of irrigation water resources in the Tohaku irrigation project Ministry of Agriculture, Forestry and Fisheries Soil salinity improvement using artificial zeolite Research of Requisition Simultaneous movement of salt and water in unsaturated sand Allocation from the University Funds Non-destructive measurement of moisture and salt in unsaturated soil Allocation from the University Funds Estimation of hydraulic properties using multistep inverse method Allocation from the University Funds Subsurface irrigation using seeping type porous rubber tube Scholarship fund for research from Nippon Sanso Co. Development of simplified soil moisture sensor Scholarship fund for research from Hama Corporation Dune sand improvement using recycled paper Scholarship fund for research from Ikedaya Kamiki Co.