

## 2.2 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

Studies on the modification of the microclimate of the agricultural fields

Allocation from the University Funds

Change of sand dune agriculture in the Fukube village, Tottori

Allocation from the University Funds

Studies on the evaluation of natural energies

Allocation from the University Funds

Studies on the water use in the dry zone in Sri Lanka

Allocation from the University Funds

Researches on lightning and precipitation

Research of Requisition

Systematization of upland irrigation planning based on the actual usage of water in fields

Monbusho Grant-in-Aid for Scientific Research A(1)

### Subdivision 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 non-destructive measuring systems for root growth based on AE method

Allocation from the University Funds  
Development of plant production system using sea water  
Allocation from the University Funds  
Physiological response of soybean on salt stress  
Allocation from the University Funds  
Effect of root zone temperature on root growth  
Allocation from the University Funds  
Search for germination stimulant of parasitic weed  
Monbusho Grant-in-Aid for Scientific Research C  
Search for potential plants from semi-arid regions  
Tottori Industrial Technology Association  
Biohalogenation in higher plants  
Sumitomo Foundation

### **Subdivision of Plant Production**

Studies on crop tolerance to water deficiency and salinity  
Allocation from the University Funds  
Studies on practical aspects of melon cultivation on a sandponics bed system  
Allocation from the University Funds  
Damage alleviating effects of several substances on plants under drought and salt stresses  
Allocation from the University Funds  
Studies on utilization of drought tolerant leguminous plants  
Allocation from the University Funds

### **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

### **Subdivision of Land Conservation**

Discussion on soil degradation mechanism and efficient irrigation schedules in irrigated arid land  
Monbusho Grant-in-Aid for Scientific Research B(2)  
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  
Dune sand improvement using recycled paper  
Allocation from the University Funds  
Simultaneous movement of water flow and salt transport in unsaturated sand

*Research Projects*

Allocation from the University Funds

Estimation of hydraulic properties using multistep inverse method

Allocation from the University Funds

Water, salt and nutrient interaction in plant growth

International academic research by Monbusho Grant-in Aid for Scientific Research