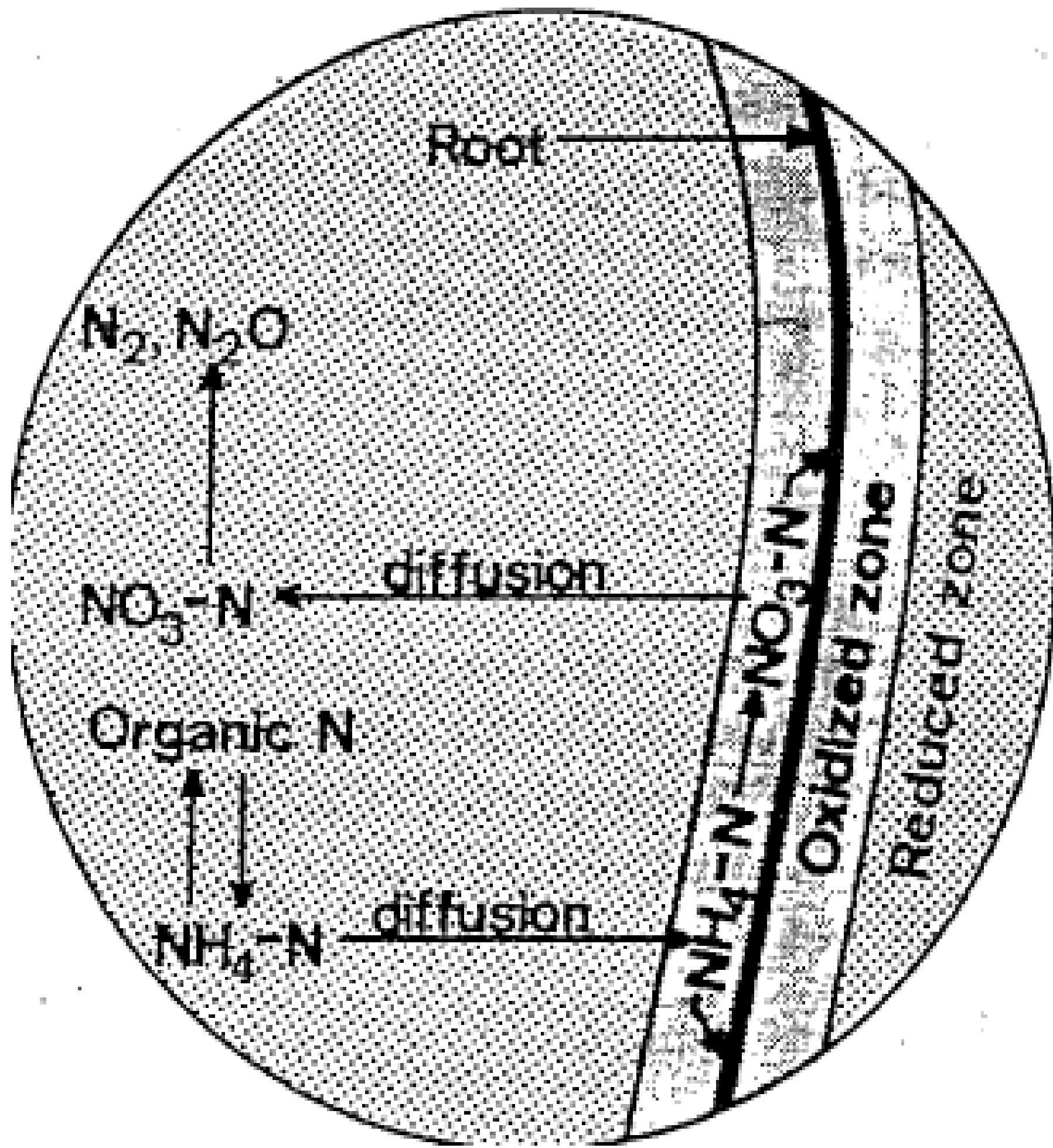




# Effect of Water Management on Root Activities, N Uptake and Yield of Rice

## Introduction



Mid-Season Drainage



SRI

- ✓ Rice production needs to be increase with reduced water application
- ✓ Reduced 'climate-forcing' practices.
- ✓ To develop more eco-friendly management practices in the rice sector.

**Increasing productivity and quality of rice**

### Controlling nitrogen absorption

- Reducing non-productive tiller
- Increasing lodging resistance

### Keeping oxidative soil condition

- Maintaining / promoting root activity

## Objective

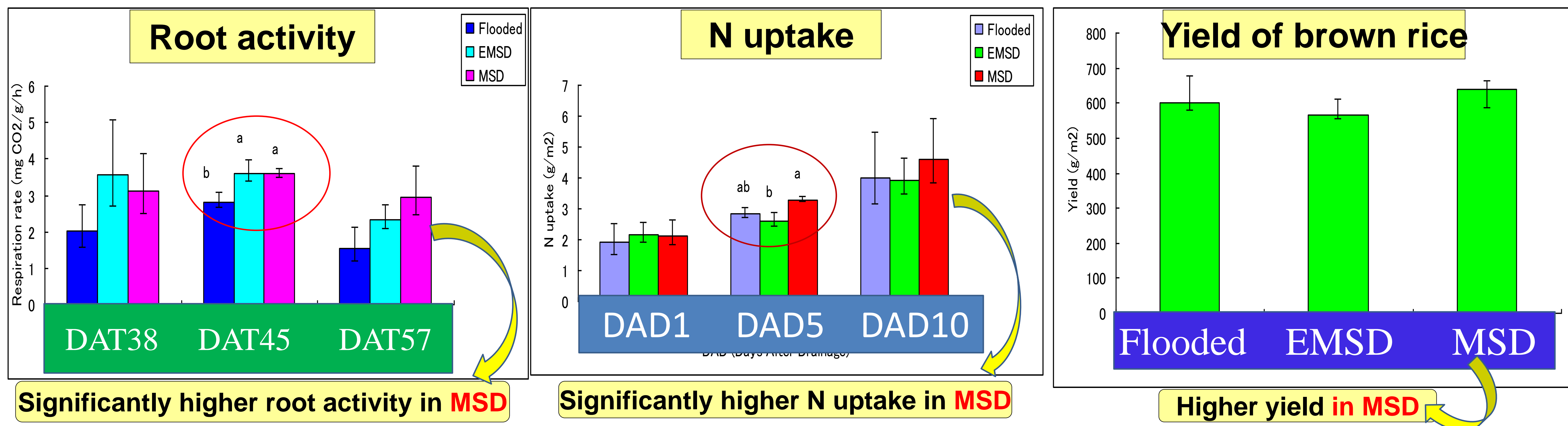
To know the relationship between water management and root activity

## Materials and Method

**Experiment 1:** Early mid-season drainage (EMSD)-water drained from DAT 26 to 36, mid-season drainage (MSD)-water drained from DAT 36 to 46 & Flooded, replication 3

**Experiment 2:** Water management-shallow & conventional, Spacing-30cm x 30cm & 30cm x 15cm, replication 3

## Results: Experiment 1



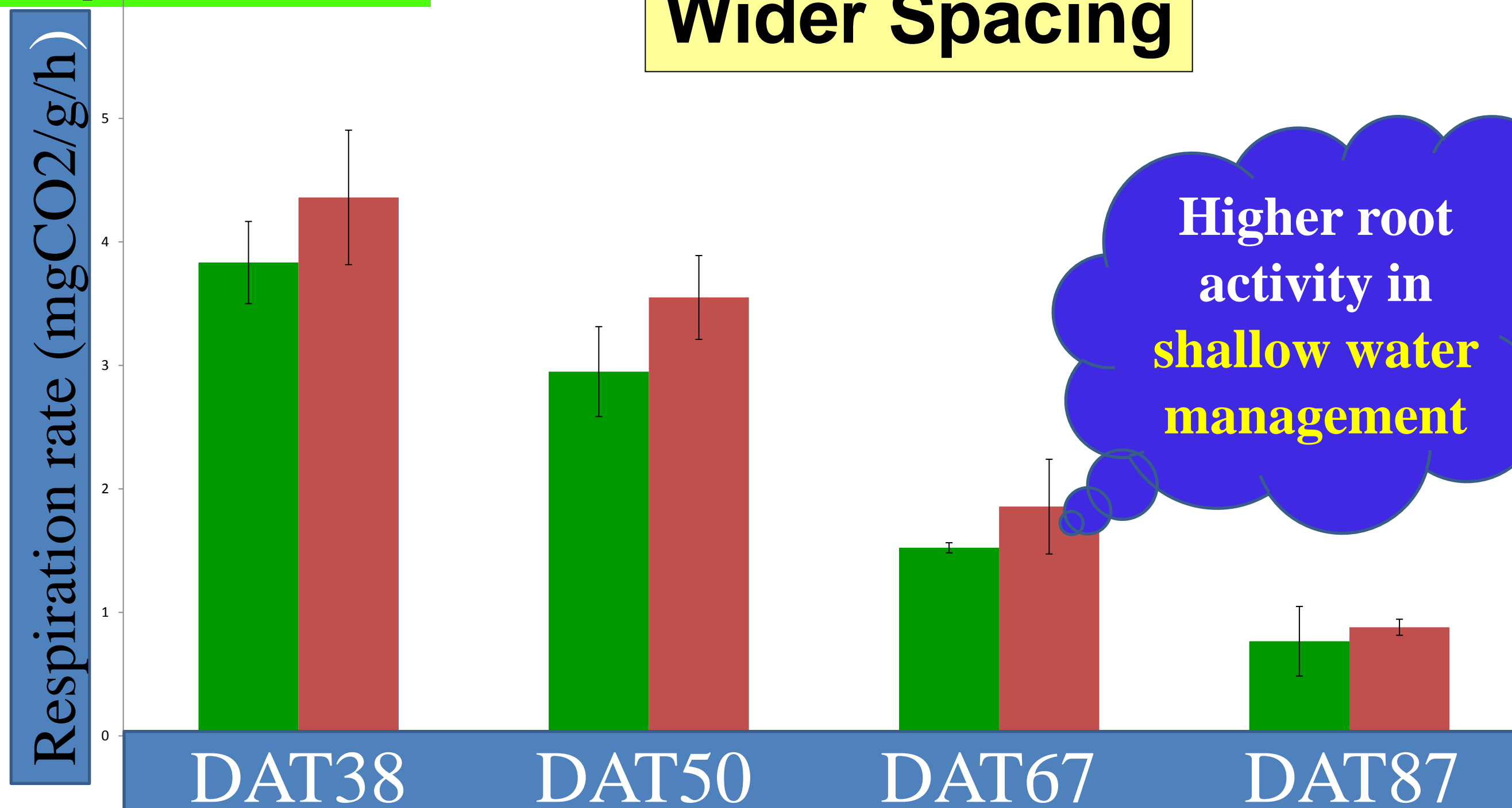
Significantly higher root activity in MSD

Significantly higher N uptake in MSD

Higher yield in MSD

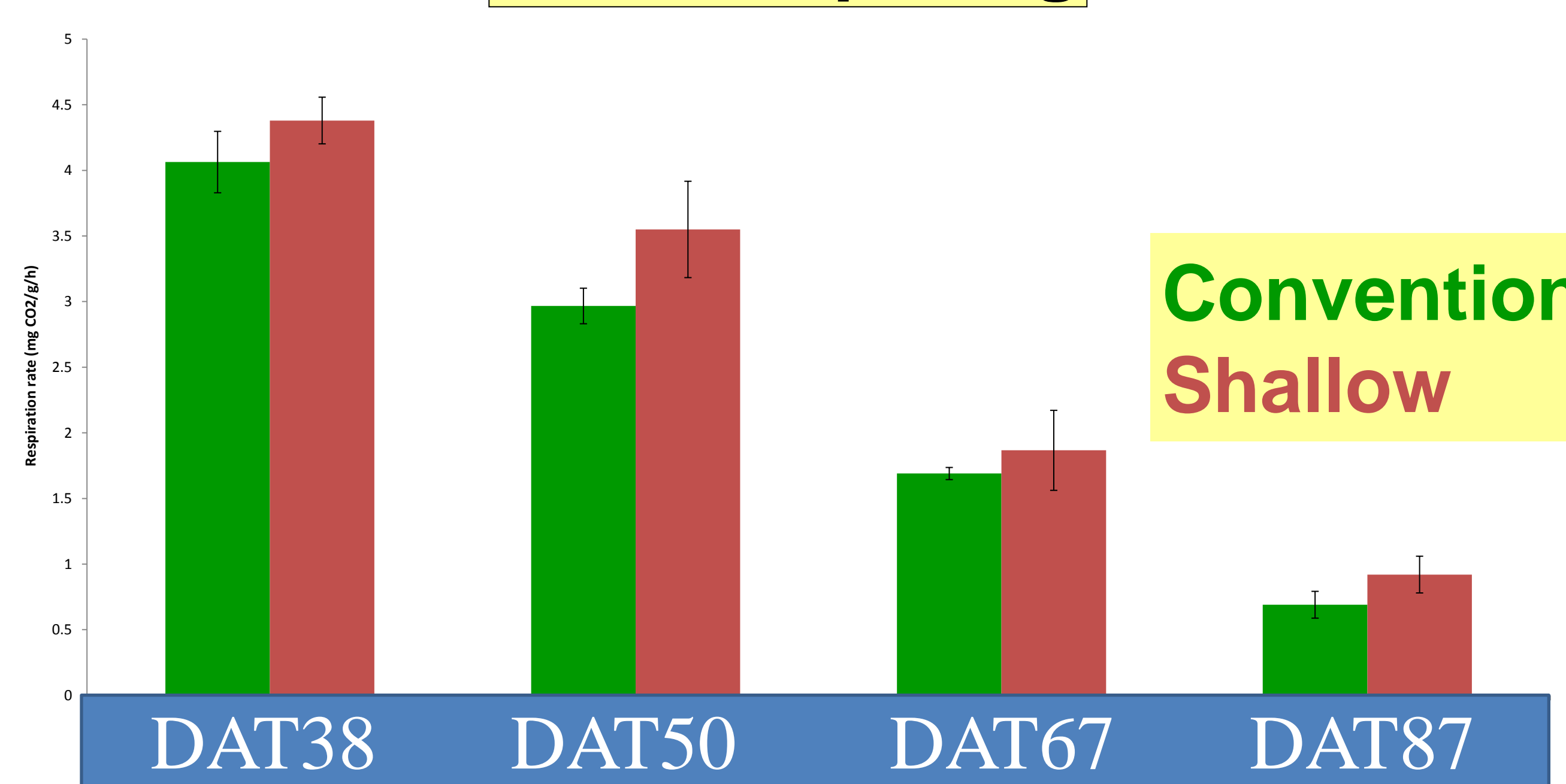
## Experiment 2

### Wider Spacing



Higher root activity in shallow water management

### Narrow Spacing



Conventional Shallow

## Conclusion

Water management (MSD & shallow water) could be helpful for root physiological activity which ensure better growth and yield depending on soil and nutritional conditions.