

博士論文発表会（公聴会）
Doctoral Thesis Presentation (Public Hearing)

**Physiological Responses and Variation of
Rhizobacterial Community to Phosphorus Deficiency
in Distinct Root Architectures of Lupins**

(異なる形態の根を持つ3種のルーピンにおけるリン欠乏への
生理応答と根圏細菌群集の変動)

王 瑞昕 (WANG, Ruixin)

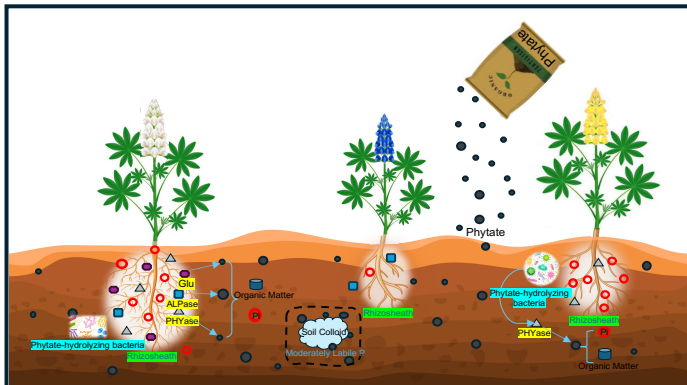
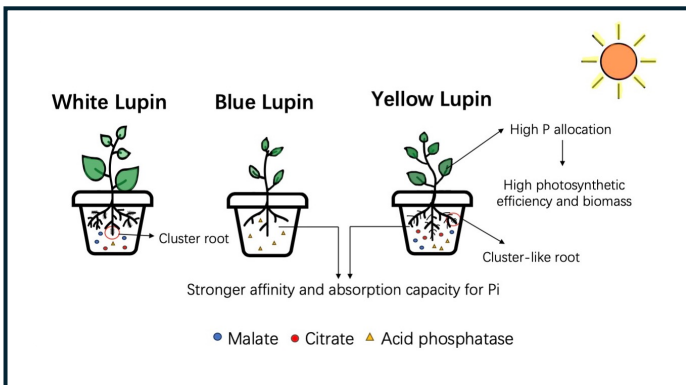
Time: August 6, 2024 (Tuesday) 10:30-

Place: K208, School of Integrated Arts and Sciences
(総合科学部K208講義室)



Main Conclusion

- ✓ Blue lupin showed significant inhibition under P-deficient conditions.
- ✓ After hydroponic P-deficient cultivation, yellow and blue lupins have greater affinity for P_i than white lupin.
- ✓ White lupin can secrete more organic acids and elevate phosphatase activities to cope with P scarcity.
- ✓ Increased bacterial richness in the rhizosheath of white and yellow lupins can promote the mineralization of organic P.



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