

# Pea Double Inoculant Trial

Trial ID: 2024-P2IN01 – R.M. Wallace-Woodworth

**Objective:** Quantify the agronomic and economic impacts of double and single inoculation strategies in field peas.

**Summary:** Nodulation ratings were similar between treatments and indicated nodulation was agronomically sufficient. There was no significant yield difference between double and single inoculation. Due to the lack of yield response with granular inoculant in addition to on-seed inoculant, there was a decrease in profit/ac, equivalent to the cost of the in-furrow granular inoculant application.

## Trial Information

<b>Treatment</b>	Aktiv Fuel (on-seed) vs Aktiv Fuel (on-seed) + Lalfix Start Spherical Pulses
<b>Last Pea Crop</b>	~ 15 years ago
<b>Pea History</b>	1 time
<b>Soil Texture</b>	Clay Loam
<b>Previous Crop</b>	Wheat
<b>Tillage</b>	Zero Till
<b>Seeding Date</b>	May 2
<b>Variety</b>	AAC Chrome
<b>Seeding Rate</b>	180 lbs/ac
<b>Row Spacing</b>	12"
<b>Plant Stand @ V4</b>	278,000 plants/ac
<b>Harvest Date</b>	August 16

## Precipitation (mm)

	May	Jun	Jul	Aug	Total
<b>Rainfall</b>	90.6	100.8	13.8	38	243.2
<b>Normal</b>	48	75.6	64.5	57.8	245.9
<b>% Normal</b>	189%	133%	21%	66%	99%

## Early season Nodulation Observations



Nodulation was developing well early in the season. Image (left) captured on June 7 when the peas were at V3-4.

## NDVI Field Image July 18



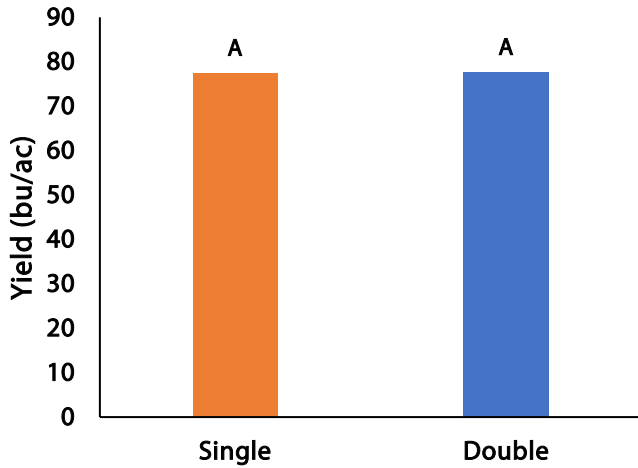
## Nodulation †

	Average Nodulation Rating @ R2
<b>Double</b>	3.95 A
<b>Single</b>	4.14 A

† 0 = no nodules OR nodules with green/white colour, 1 = <3 clusters of nodules, 3 = 3-5 clusters of predominantly pink nodules, 5 = >5 clusters of pink nodules



## Yield by Treatment



## Overall Yield & Economics

	Mean (bu/ac)	Cost †	Change in Profit/ac ††
Double Inoculant	77.5	\$15/ac	-\$10/ac
Single Inoculant	77.3	\$5/ac	
Yield Difference	0.2		
P-Value	0.902		
CV	2.7%		
Significance	No	Economic	No

† Based on an estimated cost for on-seed + granular in-furrow vs. on-seed only

†† Because yields were not significantly different, there is no increased income with the double inoculant to offset the increase in price. Profit/ac decreases by the increased cost as a result.



At the time of the assessment, the pea roots in this trial were adequately nodulating for both treatments.