

Barley Time of Sowing and P Requirements Demonstration

Summary: Mundah a short season feed barley from WA outperformed Galleon when sown in July by almost doubling its yield. There was no benefit (there was a yield penalty) of using high rates of P when sowing late.

Background: It is widely believed that late sowing requires an increased P fertiliser input to enable the crop to rapidly grow.

Aim: To determine whether late sown cereal crops require higher rates of P.

Methods: Two types of barley (Mundah and Galleon) were sown in June and July with three rates of P fertiliser (P at 6, 12 and 18 kg/ha). Plots were not replicated - this is a demo only.

Results: Mundah is a short season feed barley from WA.

Sowing date	P fertiliser (kg/ha)	Yield (t/ha)	
		Mundah	Galleon
June 9	6	1.88	1.45
“	12	2.16	1.88
“	18	1.57	1.31
July 11	6	1.85	1.35
“	12	1.95	0.70
“	18	1.15	0.65

Interpretation: The yield of Mundah was the same in the early and late sowing (Galleon lost yield when sown late). For Mundah, a yield increase was found at the earlier sowing (June) and late sowing with using the normal rate of P (12 kg/ha), however the high rate of P (18 kg/ha) caused a yield loss. For Galleon there was a yield response to the normal rate of P at the earlier sowing, but at the late sowing there was a yield loss. The loss in yield due to high rates of P fertiliser has also been observed in other trial work in 1997.

Commercial Practice: From this one year of data in a very dry year, using demonstration plots, it does not appear to be beneficial to increase sowing rates when sowing barley late. These results have to be reviewed with other P fertiliser trial work in 1997.