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Riley, M M. (1987), *Effect of seed-dressed molybdenum on fungicides..* Department of Primary Industries and Regional Development, Western Australia, Perth. Report.

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6. EFFECT OF SEED-DRESSED MOLYBDENUM ON FUNGICIDES
87No86/1213 EX

Aim: To examine if seed-dressed molybdenum affects the effectiveness of seed-dressed fungicides in controlling flag smut of wheat.

Location: J. McKay, Konnongorring

Soil: Brown gravelly, sandy loam

Results: Sown - June 15
- Eradu wheat at 50 kg/ha
- Agras at 200 kg/ha

Harvested - November 25

Table 8. Seed-dressings of molybdenum and fungicides and their effect on the germination of wheat, in pots of white sand kept moist in the glasshouse

Fungicide	Fungicide form	Fungicide rate (per kg seed)	*Molybdenum form	Germination (%)
Nil	-	-	Nil	91
			Powder	97
			Solution	94
Baytan	Powder	1 g	Nil	96
			Powder	91
Erex	Powder	1 g	Nil	98
			Powder	92
Vitavax	Powder	1.25 g	Nil	97
			Powder	97
	Liquid	2.5 ml	Nil	94
			Liquid	93
Vincit	Powder	1 g	Nil	98
			Powder	97
	Liquid	1 ml	Nil	95
			Liquid	99

* $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$ at 1 g/kg seed (50 g/ha)

Molybdenum and fungicides applied to seed in the laboratory by vigorous shaking in plastic bags.

Table 9. Effects of seed-dressing molybdenum and fungicides on the incidence of flag smut and the grain yield of wheat

Treatment	Flat smut (plants/plot)	Grain yield (t/ha)
Nil	170	1.86
Mo powder	114	1.86
Mo liquid	153	1.92
Baytan powder	2	1.94
Baytan powder + Mo	0	2.04
Erex powder	0	1.98
Erex powder + Mo	1	2.02
Vitavax powder	4	1.98
Vitavax powder + Mo	0	1.96
Vitavax liquid	1	1.86
Vitavax liquid + Mo	4	2.04
Vincit powder	0	2.02
Vincit powder + Mo	2	2.02
Vincit liquid	1	2.10
Vincit liquid + Mo	2	2.04

Results:

Results of analyses of plant tissues for concentrations of molybdenum have yet to be completed. Preliminary results indicate:

1. The application of Na_2MoO_4 and/or the fungicides examined had no marked effect on the per cent germination of the wheat, although those receiving Erex or Baytan were darker, shorter and twisted at day 10.
2. Although the incidence of flag smut appeared quite severe, there was little reduction in final grain yield where no fungicides were applied.
3. Applied at the recommended rates, the seed applied fungicides examined were near to totally effective in eliminating flag smut. The application of Na_2MoO_4 did not affect the effectiveness of the fungicides.