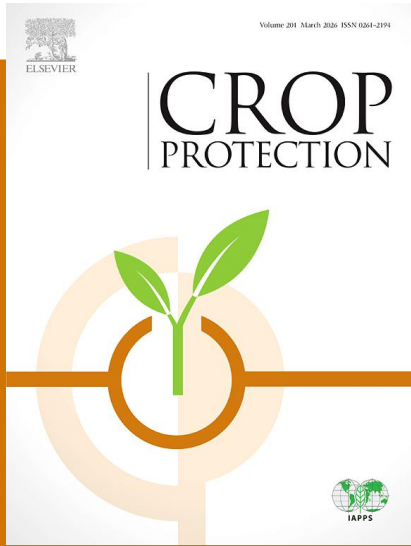




Quantitative summary of nine years of fungicide efficacy data for managing white spot and protecting yield in maize

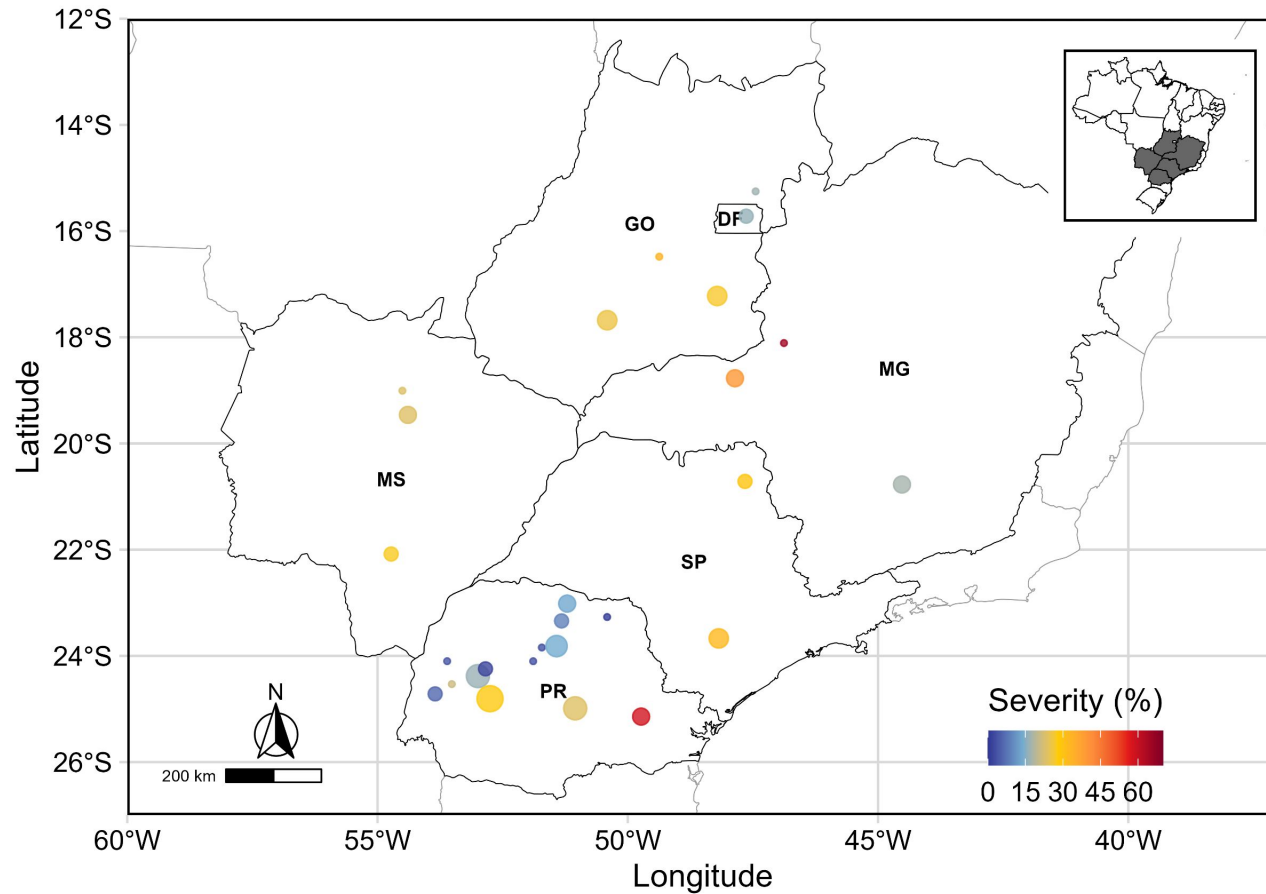
De Col et al., 2025

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2016–2024 → 5 States (GO, MG, SP, MS, PR, + DF) → 55 Fungicides tested



Fungicide inclusion criteria

Tested in ≥ 19 trials across ≥ 4 years
with untreated control

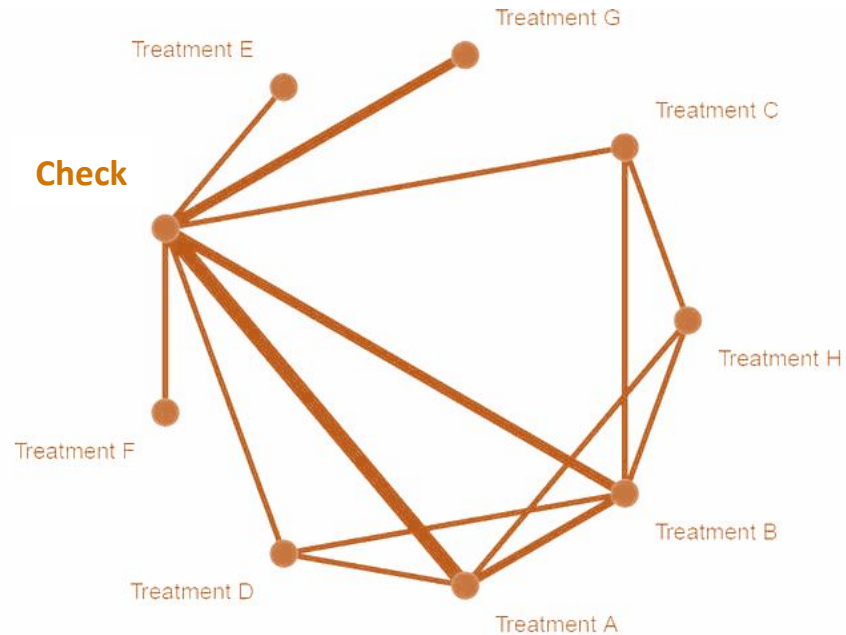
8

Fungicide IA	Fungicide code	Commercial name	FRAC code
Nontreated check	CHECK	—	
Chlorothalonil	CLOR	Previni	Mult
Mancozeb	MANC	Unizeb Gold	Mult
Difenoconazole + Pydiflumetofen	DIF + PYDI	Miravis Duo	DMI + SDHI
Pyraclostrobin + Epoxiconazole	PYRA + EPOX	Abacus HC	QoI + DMI
Pyraclostrobin + Fluxapyroxad	PYRA + FLUX	Orkestra SC	QoI + SDHI
Azoxystrobin + Tebuconazole + Mancozeb	AZO + TEBU + MANC	Tridium	QoI + DMI + Mult
Pyraclostrobin + Fluxapyroxad + Mefentrifluconazole	PYRA + FLUX + MEFE	Belyan	QoI + SDHI + DMI

What is the efficacy of foliar fungicides against MWS?

How do they affect yield?

Network meta-analysis



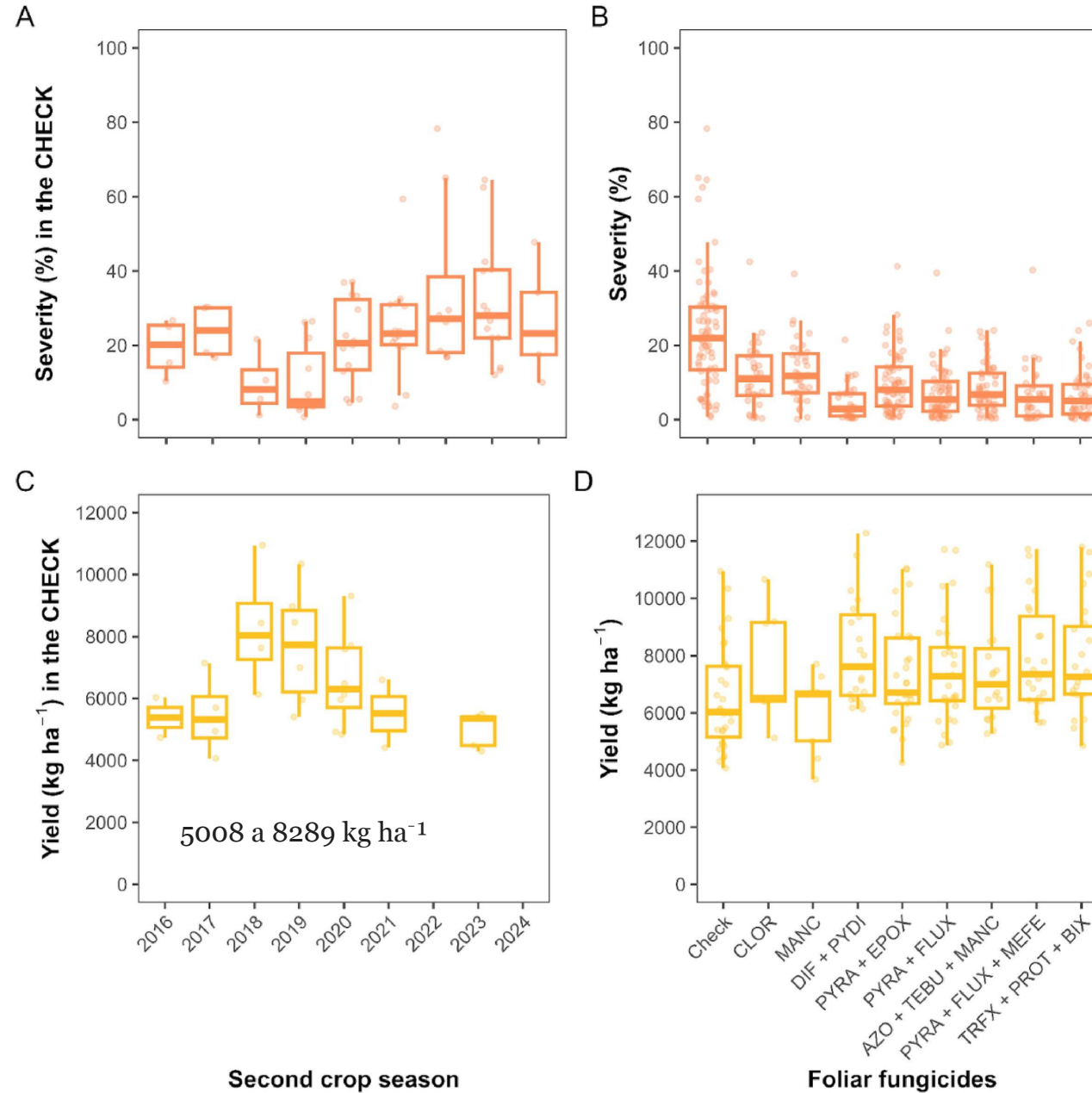
Unconditional linear mixed model
Two-stage approach

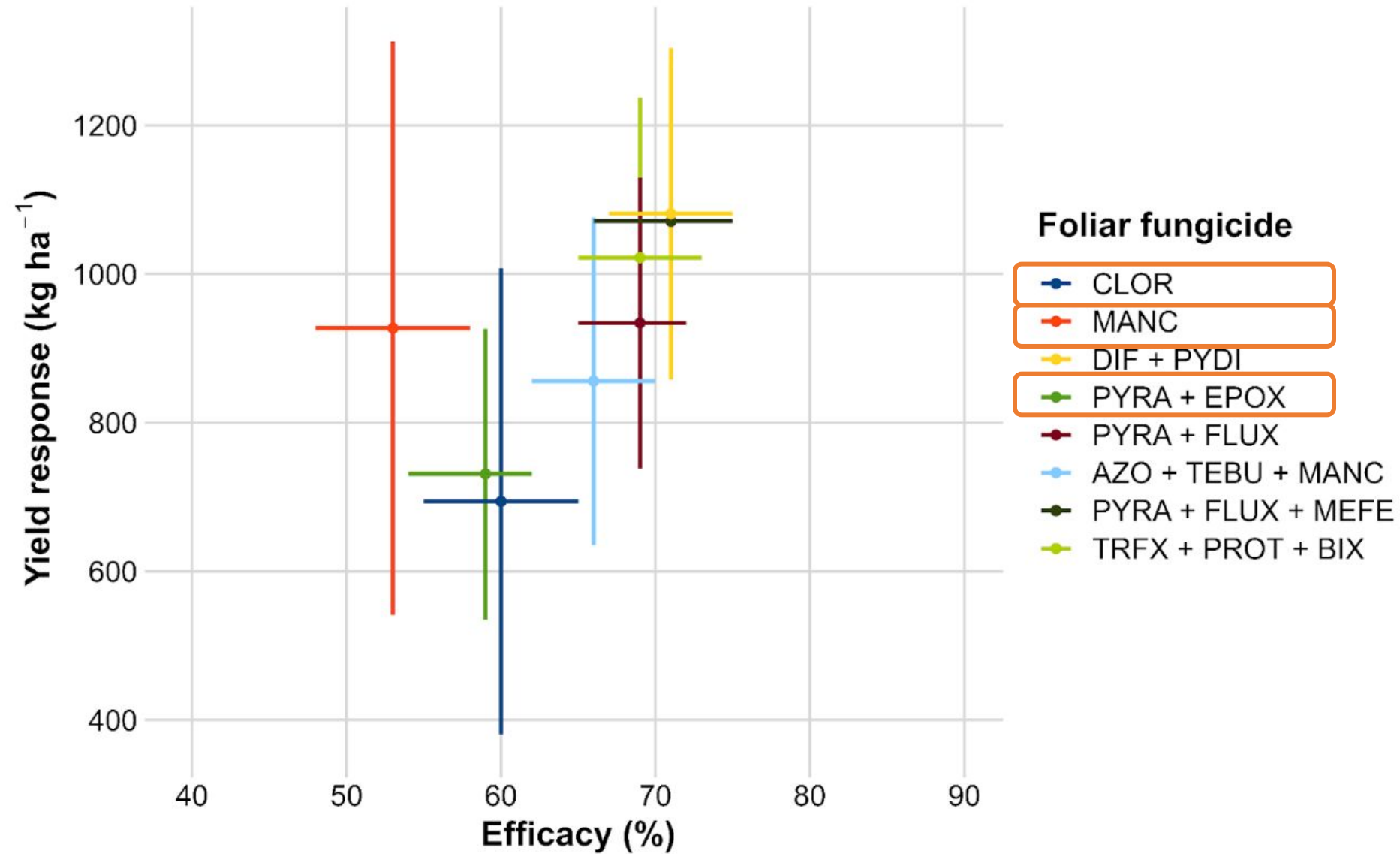
ANOVA for each
trial sev/ yield
 $\mu \sigma^2$

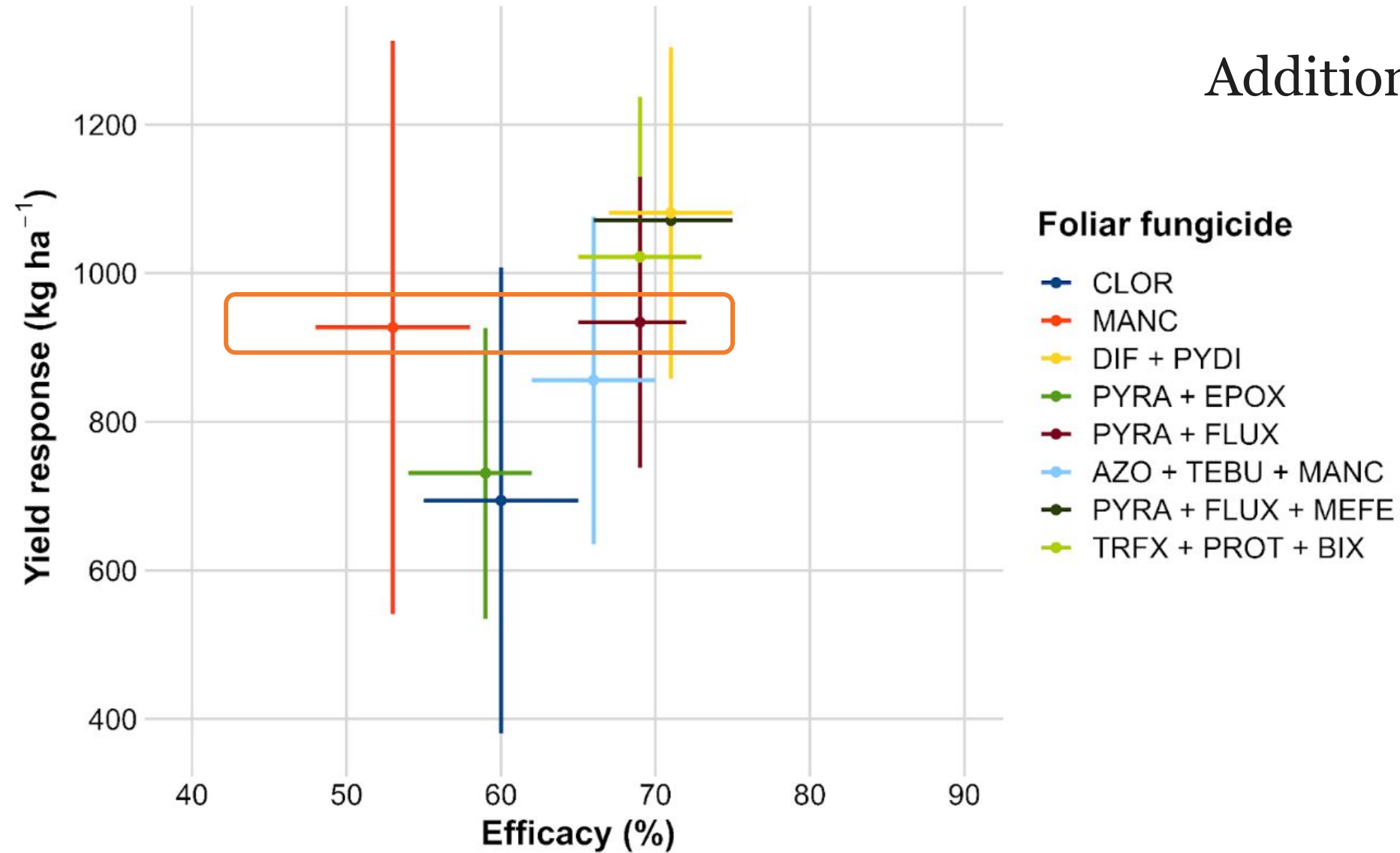
Arm based
network model

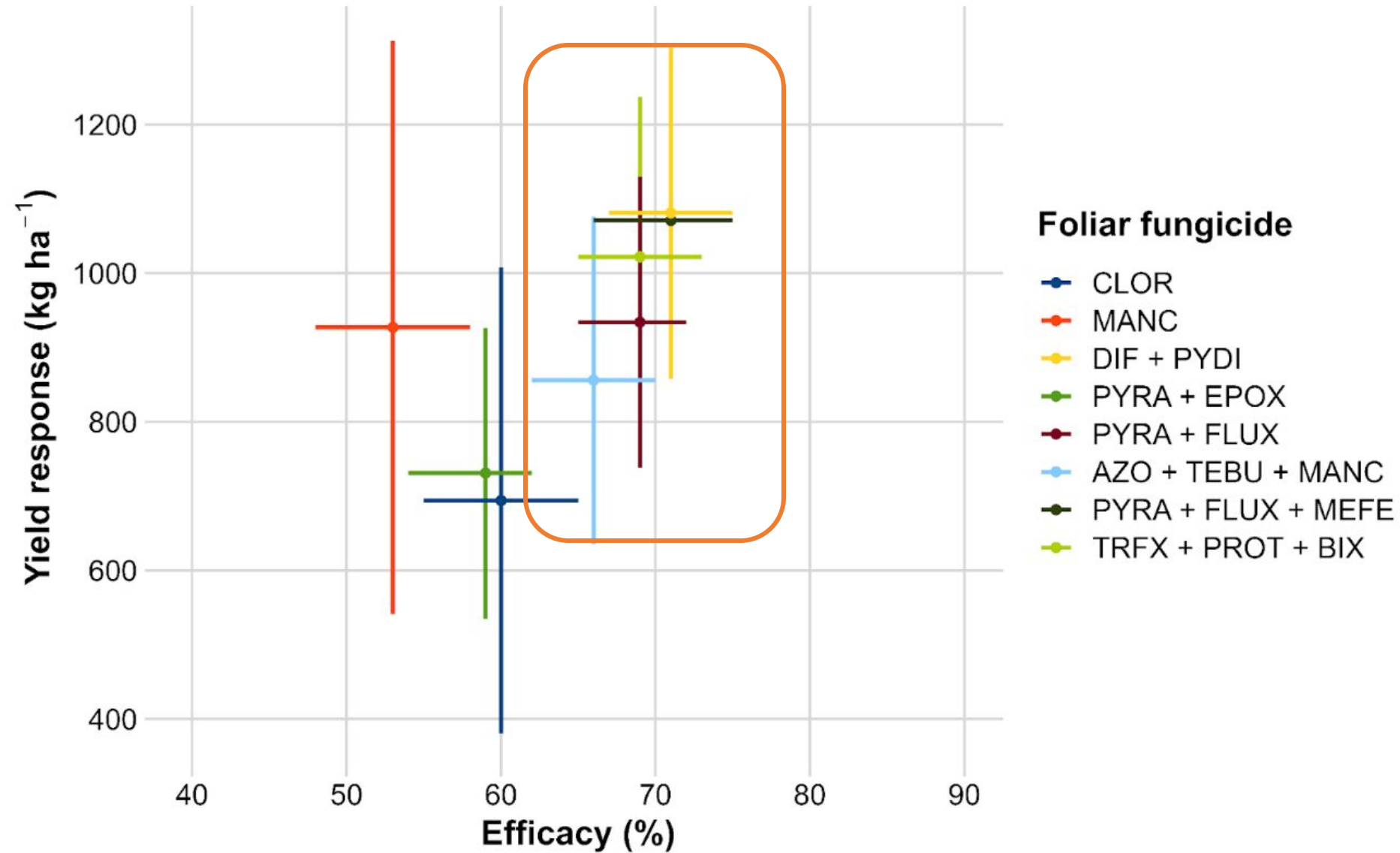
Control efficacy
and yield response

RESULTS





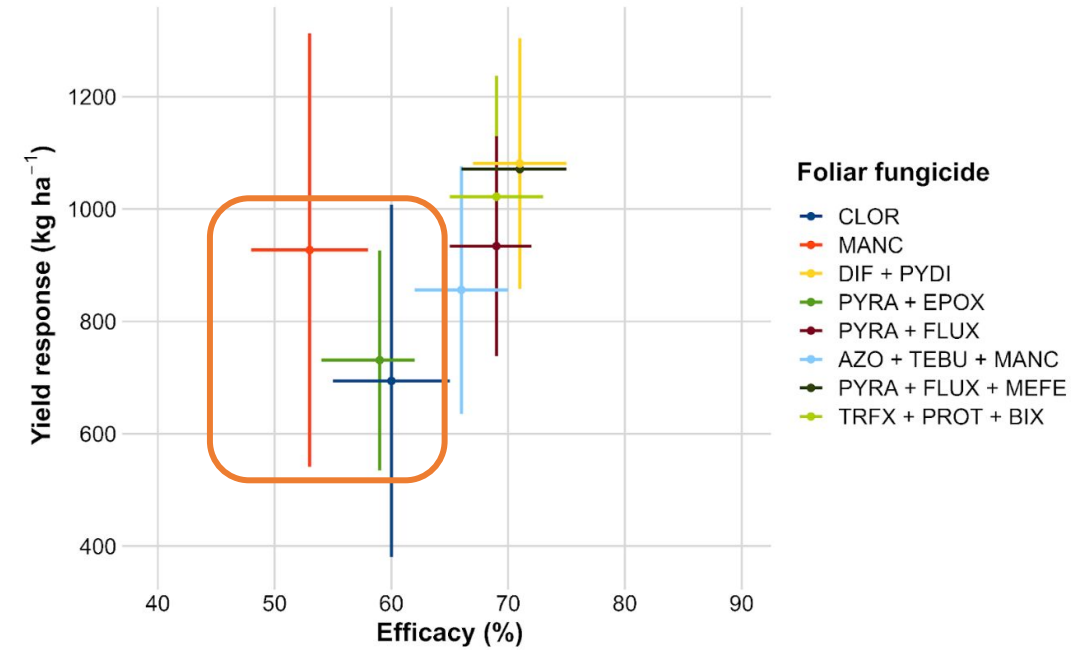
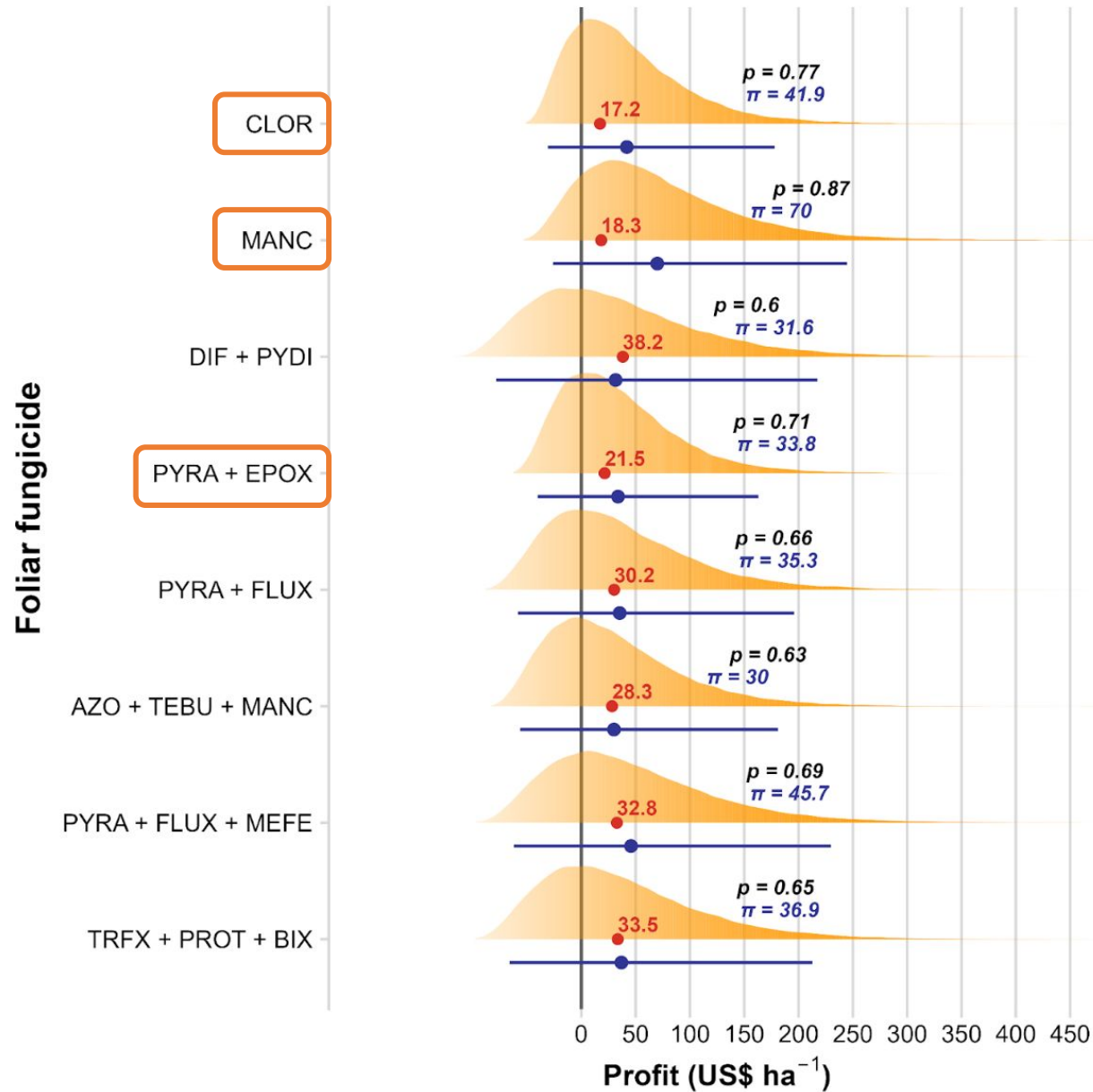


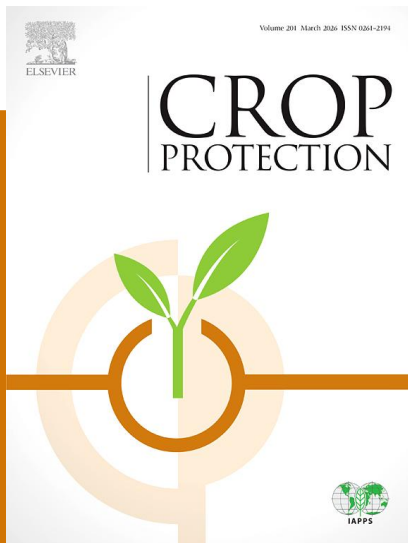


Is the increase in yield resulting from disease control with each fungicide sufficient to provide a positive economic return relative to application costs?



- Historical data on the price of maize
- Cost of fungicide in three applications
- Yield return





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