

SORGHUM ERGOT AND FUNGICIDES

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Over the last few days both Greg Salmond, Senior IDO - Summer Cereals, DPI&F Pittsworth, and myself have received some enquiries regarding the use of fungicides to control sorghum ergot.

Although a triazole fungicide is currently under permit for the control of sorghum ergot in seed production blocks, it is **not** under permit for use in either commercial grain sorghum or forage sorghum crops. No MRL's have been set for seed or crop residues from the seed production crops, and there are strict guidelines for the end uses of seed and residues from such crops; in particular, livestock cannot consume produce from sprayed crops.

We conducted extensive fungicide efficacy trials after sorghum ergot was first discovered, with the express purpose of developing a spray regime for hybrid seed production blocks, and our conclusions in summary are –

- triazole fungicides were the only effective fungicides
- this group of fungicides does not have eradicant properties, ie., they will not kill the sorghum ergot pathogen once it has invaded a sorghum flower
- although this group of fungicides is considered to be systemic in some situations, they do not act in this manner on sprayed sorghum panicles, rather they act as protectants
- for effective control, multiple applications are necessary commencing when the panicles first emerge and then every 3-4 days until the end of flowering
- because individual panicles take 5-7 days to flower from top to bottom, and within a crop there is a range of flowering times, the fungicides need to be applied over a few weeks
- triazole fungicides are expensive, so their use is economic only in the very high value hybrid seed production situations

Honeydew in tillers is likely to be the biggest problem in the current outbreak of sorghum ergot in southern Queensland. There is little that can be done apart from spraying crops with glyphosate, once a majority of grain is past the dough stage (=black layer at base of seed). Our trials have shown that within about 3 days of spraying, the amount of new honeydew produced is significantly reduced compared with unsprayed plants. The honeydew will slowly dry, but the best scenario is for heavy rain to fall as, or after the sprayed plants die.