

Planting warning - take care

Cotton and summer crop growers are being warned to take extra care when planting this season, especially if planting dry and then watering up or planting following recent rainfall.

Agronomist with Incitec Pivot Fertilisers, Bede O'Mara, said experience shows that after a dry winter and early spring, ammonia toxicity in emerging summer crops can be a serious problem.

"Although the dry soils were ideal for pre-planting urea and **BIG N**[®], there's been little or no rain since, so the fertiliser is likely to still be sitting in the soil in same form it was when it was applied," he said.

"When fields are watered up or the spring rains arrive, that may be the first moisture to come in contact with the fertiliser, which starts the nitrification process."

He explained that nitrification relies on soil microbes and the time required depends on soil moisture and temperature, as well as the amount of nitrogen applied.

"It will be a little slower as soils cool down following rainfall or irrigation and slower where high nitrogen rates have been applied," he said.

He said as the nitrification process kicks off, excess ammonia gas may be present, which can be toxic to the seedling roots.

"While damaging concentrations of ammonia may only be present for a couple of weeks, that's long enough to hurt your germinating crops and young seedlings," he said.

"We've seen it before in a handful of seasons and the results can be devastating, from patchy emergence to crop failure requiring re-planting."

To protect emerging crops, Mr O'Mara said growers should keep the plant line well away from pre-plant nitrogen bands.



Bede O'Mara, Incitec Pivot Fertilisers

He said watering up before planting was a good strategy, but growers needed to allow three to four weeks post-irrigation for full nitrification to occur before planting.

"Because the soil is so dry this season it is taking more water than usual to water up fields, so pre-watering won't be for everyone," he said.

"If you are planting dry and then watering up or planting on the first rain, it is absolutely essential that the seed row is well away from the nitrogen fertiliser. That means at least 10 cm to the side.

"Consider planting a small area and monitoring emergence if you are in doubt."

For more information or advice on planting cotton and summer crops this season, contact your local fertiliser agronomist.

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