

## Think ChickKP (S)Zn for chickpeas

As growers continue to replace wheat in their rotation with chickpeas to capitalise on higher market prices, there's a growing need to update fertiliser programs - or face nutrient run down.

Bede O'Mara, Incitec Pivot Fertilisers' sub-tropical farming systems agronomist, says one of the major differences between growing wheat and chickpeas is that chickpeas remove significantly more potassium.

"This increased potassium removal will add up for growers who are now regularly including chickpeas in the rotation, particularly if they are growing the crop year on year with other higher potassium removal crops such as cotton and high yielding summer grains like sorghum or corn."

Last season, Mr O'Mara arranged grain testing to provide up to date guidance on nutrient removal from chickpea crops.

The test results showed that one tonne of chickpea grain removed 10.7 kg of potassium - nearly three times more than one tonne of wheat (3.7 kg).

The chickpea crop also removed more nitrogen, phosphorus and zinc per tonne of grain than wheat.

Chickpeas were shown to remove 37.4 kg/t of nitrogen, 4.1 kg/t of phosphorus and 35 g/t of zinc in the tests, conducted by the Nutrient Advantage laboratory.

"When you multiply these figures by the high yields that many growers achieved last season, it could well have been a high removal event for those paddocks," explained Mr O'Mara.

"If chickpeas become more of a pillar crop in the rotation, they will come at a larger nutrient removal cost."

He added that there were some confirmed and suspected cases of potassium deficiency in chickpeas over the last few seasons on soil types known for being on the lower side of adequate. These included many box soils and other variable soil types.

Acting on these insights, Incitec Pivot Fertilisers has created a new fertiliser blend for chickpea crops, called ChickKP (S)Zn.

ChickKP (S)Zn	IPF Product Code 33813	Product Analysis %					
		N	P	K*	S	Ca	Mg
		6.0	11.4	19.1*	10.7		
		Trace Elements %					
Zn	B	Cu	Mn	Mo	Fe		
0.7							

\* K in this product is sourced from Sulphate of Potash

Mr O'Mara encouraged chickpea growers to consider rates of around 100 kg/ha of ChickKP (S)Zn at planting on 50cm or narrower row spacings rather than using their standard cereal starter fertiliser, which contains no potassium.

On wider rows, lower product rates of around 60-75kg/ha should be applied in contact with seed.



Bede O'Mara is encouraging chickpea growers to use the new ChickKP (S)Zn fertiliser this season

"ChickKP (S)Zn will better meet the nutrient requirements of chickpea crops and ensure longer term sustainability in the cropping system," said Mr O'Mara.

"Another strategy to improve potassium inputs may be to drill 50 to 100 kg/ha of muriate of potash as a test strip eight or more weeks prior to planting.

"This will allow the assessment of potassium responses in chickpeas or other rotational crops."

Muriate of potash is not recommended for use at planting in contact with seed.

Alternative organic sources of potassium such as manure and compost could also be used, but they need to be broadcast and incorporated at the beginning of the preceding fallow for seed safety and nutrient availability reasons.

"If you're growing chickpeas where you haven't grown them before, soil test first to determine starting soil fertility and check for any subsoil constraints," he said.

Mr O'Mara also cautioned growers against expecting high levels of nitrogen to be available following the 2016 chickpea crop.

"In a lot of cases, particularly in the north, the nitrogen hasn't mineralised yet due to the drier than usual summer fallow," he said.

"Hopefully, we will see improving soil moisture levels and warmer soils between now and the end of autumn which will allow the nitrogen from previous legume crops to become crop available."

For more information and advice on nutrition for chickpeas in 2017, see your local Incitec Pivot Fertilisers Dealer.



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