

FALLOW SOWING PW PI HARVEST

Nutrition Variety Herbicide Harvesting Irrigation Farm Tech Pest & Disease Policy & Environment

BENEFITS OF EM MAPPING & SOIL TESTING

Achieving balanced crop nutrition depends on understanding the crop's nutritional requirements and knowing the most effective time, form and method of applying additional nutrients if required. Crop nutrition will also be influenced by paddock history, crop rotation, rice cultural practices (e.g. sowing method and water management), and the variety of rice sown.

Each nutrient or element required by the rice plant has a specific role in the plant's growth, function or development. A deficiency or excess of any nutrient can reduce growth and yield. Nutrients required by plants are classified as macronutrients and micronutrients (also called trace elements). The plant uses macronutrients in kilograms per tonne of grain produced, whereas micronutrients are used in grams, milligrams or even a few millionths of a gram. (Refer to Table 1).



Nutrient export/losses											
Grain (12 t paddy)	122	30	37 *	10	13	3	0.04	0.30	1.20	1.0	0.22
Unexplained N losses ³	57	-	-	-	-	-	-	-	-	-	-
Total exports/losses	179	30	37	10	13	3	0.04	0.30	1.20	1.0	0.22

Table 1.

Nitrogen and phosphorus must be added to most crops in the rice-based farming system. Conversely, applications of potassium have not been warranted to date due to inherent high potassium levels in most rice-growing soils. Similarly, rice-growing soils contain high amounts of iron and manganese. Zinc deficiency is possible on alkaline soils, where landforming has removed topsoil and alkaline subsoil is exposed. Zinc deficiency is also likely after prolonged removal by high-yielding crops.

Phosphorus plays a key role in determining the number of panicles and grains per panicle; as well as contributing to grain quality. It is important for timely flowering and grain ripening (especially when temperatures are low). Deficiency reduces yield potential and maturity is delayed, often by a week or more.

(Production+of+Quality+Rice+in+South+Eastern+Australia+Pt1.pdf (squarespace.com))

WHERE SHOULD A SOIL TEST BE TAKEN?

EM Mapping is a reliable option for soil condition assessment and paddock zoning according to soil type. It is an effective way of measuring soil texture, moisture, and salinity to enable growers to manage specific areas of their paddocks in accordance with the soil types. (Soil mapping | Farmacist)- See Figure 1

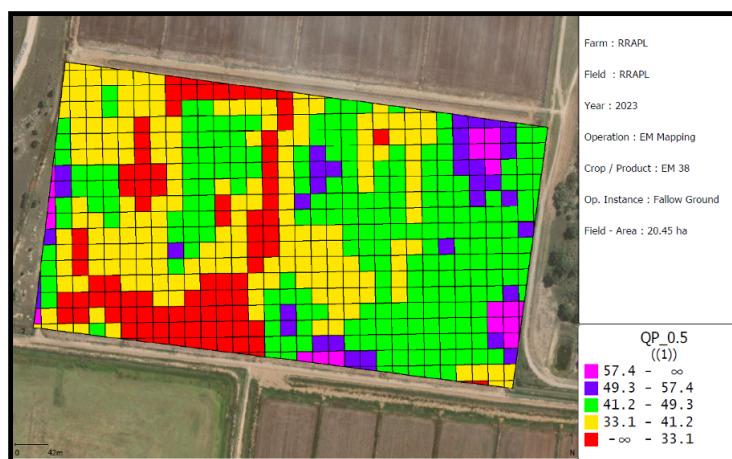


Figure 1.

Talk to your local agronomist for more information.

KEY MESSAGES

AS MORE DRILL SOWING IS UNDERTAKEN, THE IMPORTANCE OF SOIL NUTRIENTS IS INCREASING

Paddock history is important, there is no accurate nitrogen soil test for rice

PHOSPHORUS IS AN ESSENTIAL MACRO ELEMENT

EM MAPPING IS A QUICK, EASY PROCESS TO IDENTIFY SOIL ZONES WITHIN YOUR Paddock

FURTHER READING Soil-pak-sis Part D & Part E



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