

NSW banana soil analysis interpretation guidelines

General ratings for interpreting soil tests for subtropical bananas

pH (1:5 water)	Value	< 4.5–5	5.1–6.0	6.1–6.5	6.6–7.3	7.4–8.4	8.5– > 9
	Category	Extremely to very strongly acid	Strongly acid to medium acid	Slightly acid	Neutral	Mildly to moderately alkaline	Strongly to very strongly alkaline
		Optimum					

Test	Units/rating	Very low	Low	Medium	High	Very high
Electrical conductivity (1:5)	dS/m (or mS/cm)	< 0.15	0.15–0.45	0.45–0.90	0.9–2.0	> 2.0
Chloride (1:5)	mg/kg	< 100	100–300	300–600	600–2000	> 2000
Organic carbon	%	< 0.5	0.5–1.5	1.5–2.5	2.5–5.0	> 5.0
Colwell P	mg/kg	< 20	20–45	45–75	75–100	> 100
Fertiliser P	kg/ha	70 at planting 20–60/ratoon	70 at planting 20–60/ratoon	20 at planting 20/ratoon	0	0
Sulphate-sulphur ¹	mg/kg	< 5	5–10	10–20	20–100	> 100
Exchangeable potassium ²	cmol/kg or me/100 g	< 0.1	0.1–0.2	0.2–0.5	0.5–1.0	> 1.0
Exchangeable calcium ²	cmol/kg or me/100 g	Concentrations vary widely and general ratings are unreliable				
Exchangeable magnesium ²	cmol/kg or me/100 g	Concentrations vary widely and general ratings are unreliable				
DTPA copper	mg/kg	< 0.1	0.1–0.3	0.3–5	5–15	> 15
DTPA zinc (pH > 7)	mg/kg	< 0.3	0.3–0.8	0.8–5	5–15	> 15
DTPA zinc (pH < 7)	mg/kg	< 0.2	0.2–0.5	0.5–5	5–15	> 15
DTPA manganese	mg/kg	< 1.0	1.0–2.0	2.0–50	50–100	> 500
Boron ³	mg/kg	< 0.5	0.5–1.0	1.0–2.0	2–5	> 5
Exchangeable sodium %		< 6 non-sodic	6–14 sodic		< 14 strongly sodic	

Optimum	Needs attention	Might be damaging or limiting
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¹ Sulphate sulphur – calcium phosphate extractable

² Exchangeable cations – ammonium chloride or ammonium acetate

³ Boron – hot water extractable

NSW banana leaf analysis interpretation guidelines

General ratings for interpreting leaf tests for subtropical bananas

Nutrient	Unit	Optimum levels		
		Cavendish NSW	Lady finger NSW	Cavendish NQ
Nitrogen	%	2.80–4.00	2.40–3.20	2.80–3.50
Phosphorus	%	0.19–0.25	0.15–0.20	0.19–0.22
Potassium	%	3.00–4.00	2.40–3.20	3.20–4.80
Calcium	%	0.74–1.25	0.74–1.25	0.50–1.00
Magnesium	%	0.30–0.46	0.30–0.46	0.27–0.40
Boron	mg/kg	10–20	10–20	–
Zinc	mg/kg	20–35	20–35	–

The information presented in this document are intended as a guide only. For more accurate and appropriate interpretation of soil and leaf test results, and subsequent fertiliser recommendations, it is advisable to consult a professional.

References

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