FAS Newsletter

See for your 'sulph'

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Sulphur (S) is a macronutrient that is commonly overlooked during soil testing. Sulphur deficiencies can be found in all soil types but are most common in sandy soils with low organic matter. Insufficient sulphur can lead to reductions in yield and crop quality. In addition, there is a very strong interaction between S and nitrogen (N) in the growth of the crop. Adequate supplies of S are therefore of great importance in ensuring efficient response to applied N fertiliser.

Most laboratories offer S as an extra-cost supplementary analysis. This is due to the need for more complex analytical methods to test for this nutrient. At FAS, we understand the importance of this macronutrient and, in response, our scientists have developed a new, reliable and inexpensive method to test for S. This analysis has now been included as part of the routine fertility analysis package *at no additional cost to the customer.*

The resin-extractable S method is a cost-effective test that mimics root uptake of sulphur by the plant. This means that there is far greater accuracy of results as the method is reliably estimating the amount of plant-available S in the soil. From now on, all FAS customers will receive their soil test reports with this nutrient included!

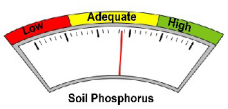
The addition of this nutrient to FAS's growing routine package is part of our ongoing commitment to provide more value to our clients without burdening them with additional costs and add-ons. Now, for as little as R210.00 per sample, clients will receive:

pH ($CaCl_2$) • copper • sulphur • zinc • phosphorus • potassium silicon • calcium • volume weight • magnesium clay and organic matter • sodium • manganese • potential nitrogen volatilisation • exchangeable acidity(Al+H) nitrogen mineralisation • total cations • acid saturation reserve potassium • exchangeable sodium percentage (ESP)

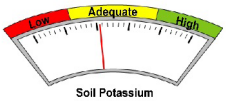
Analysis	Unit	Sample Value	Threshold	Result in kg/ha	Comment
pH (in calcium chloride)		4.53			
Phosphorus (P)	mg/L	26.3	9.1	53	Adequate
Potassium (K)	mg/L	241	169	483	Adequate
Calcium (Ca)	mg/L	928	300	1856	Adequate
Magnesium (Mg)	mg/L	161	50	321	Adequate
Sodium (Na)	mg/L	17			
Exchangeable Acidity (Al+H)	cmol/L	0.68			
Total Cations [1]	cmol/L	7.34			
Acid Saturation	%	9.3	20.0 [4]		Not limiting
Exchangeable Sodium % (ESP)	%	1.1	7.0		Not limiting
Ca/Mg (Equivalence ratio)		3.5			Not limiting
Zinc (Zn)	mg/L	2.2	1.5		Adequate
Copper (Cu)	mg/L	3.0	0.8		Adequate
Manganese (Mn)	mg/L	4.5	2.0		Adequate
Iron (Fe)	mg/L	276	3		High
Silicon (Si)	mg/L	18	15		Adequate
Clay MIR	%	36			
Organic Matter MIR	%	6.6			
Nitrogen (N) Category [2]	cat	4			
N Volatilization [3]	%	0.1	10.0 [4]		
Volume Weight	g/mL	0.91			
Reserve K	cmol/L	0.50	1.80		Low
Sulphur (S)	mg/L	35	15		High

***Note:** Thresholds, Comments and Key Indicators are sample specific and based on the attainable yield indicated on the submission form.*

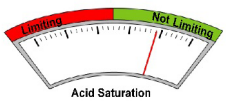
KEY INDICATORS



Soil Phosphorus



Soil Potassium



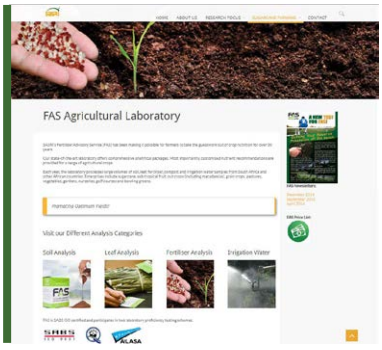
Acid Saturation

Don't guess, soil test with FAS!

Smart Tips

- With the approach of winter, rainfed growers are advised **not** to apply nitrogen at this time.
- Before applying lime and gypsum, remember to sample down to **80 cm** to check for subsoil acidity.
- Periodically open soil pits and check for compaction.

New FAS webpage



We have just launched our new FAS Agricultural Laboratory webpage.

- Check out the latest newsletters and prices.
- Download submission forms.
- Get information on how to do soil and leaf sampling for a variety of crops.
- View drop off points for soil and leaf samples.
- Get information on how to submit samples to the lab.
- Other helpful publications are also available on the site.

Visit the FAS webpage on the SASRI website www.sasri.org.za

SASRI