



The Black Stuff

Trial of The Black Stuff™ in controlling Tropical Race 1 (TR1) in sugar bananas

Background

Fusarium Wilt, Tropical Race 1, banana disease has caused widespread farm losses on banana farms. Soils North, the producer of The Black Stuff™, co-operated with the Lao PDR Department of Agriculture, to conduct field trials on sugar bananas under scientific control. Conducted 2019 – 20.¹

Rainfall Average annual rainfall 2,200 mm
History 50 H Sugar banana farm Verified all TR1 affected
Soil Type: Sandy loam PH: 4.5

Objective

To test whether The Black Stuff™ controlled TR1 and the best application rate to achieve control.

Grower: Ban Thong Mang (Village) **Crop:** Sugar banana, Pak Song cultivar
Location: Xaythany District, Lao PDR **Agronomist:** Khonesavanh Chittarhat
Plant Protection Center

Method

The trial area was cleared of TR1 infected sugar bananas, contoured and fenced. Disease free Pak Song 50 banana seedlings were planted at 2 m spacing and rows at 2 m spacing.

Trial area was divided in 4 equal areas and treated with The Black Stuff™ at these rates:
T1 with 3 tonnes/H T2 with 2 tonnes/H T3 with 1 tonne/H
T4 control lot, no Black Stuff™.

Usual local commercial practices for growing sugar bananas followed. NPK 15:15:15 was applied monthly at 150 g/plant.

Data was collected by Department of Agriculture and Plant Protection Center, recording pests, diseases, stem and leaf growth, and matched for typical signs of TR1.

Results

Plants in T1, T2 and T3 showed no signs of TR1
Black spot and yellow sigatoka disease were noted.
All plants in the control lot T4 had died.

¹ The trial was prematurely concluded in March 2020 due to the nationwide Covid-19 lockdown.

Test Method	1 mth		2 mth		3 mth		4 mth		5 mth		6 mth		7 mth		8 mth		9 mth	
	H cm	C cm																
T1	36.4	14.1	98.4	26.6	140	40.1	163.8	51.6	176.3	55.8	174.8	51.9	178.6	53.8	182	52.5	187	50
T2	31.6	14.1	72.5	21.1	137.3	38.8	158.6	50.6	164.5	53	173	52.4	168.2	48.2	175.9	52	177	48.7
T3	29.1	12.7	94.5	26.6	136.9	38.4	167	50.3	170	56.9	172.5	53.4	162.4	54.6	174	55	176	50
T4 (Control)	27.4	11.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

H - Tree height
C - Tree circumference

Conclusion

No TR1 disease found in lots T1, T2 and T3.

The Black Stuff^{TM2} is effective in the control of TR1 in sugar bananas.

The data found that 3 tonnes/H application rate was highly effective for plant growth and health.

The optimum application rate was 3 tonnes/H of The Black Stuff^{TM.3}



² The product was called NSA Wilt Stop. The local farmers found that difficult to say and call it "Foon Dam", The Black Stuff, so we renamed the product, The Black StuffTM.

³ Surrounding banana farm remained TR1 affected. Detailed report available.