

Appendix C

Statistical Calculation Summary Plantable Spots			
Project:	SU11TLFXXX	Year:	2010
Block	Unit T3 093A032-209 A42428-1		
Opening	093A032-209		
Stratum	A		
Net Area	2.1 ha		
# of Plots	n = 5		
Plot Multiplier	$PM = \frac{10,000 \text{ (m}^2\text{/ha)}}{\text{plot area (m}^2\text{/plot)}} = 200$		
Average Plantable Spots	$\bar{X} = \frac{\sum Xi}{n} = 5.400$	$\bar{X} \times PM = 1,080$	spots/ha
Standard Deviation	$s = \sqrt{\frac{\sum Xi^2 - (\sum Xi)^2 / n}{(n - 1)}} = 1.342$		
Standard Error of the Mean	$s_{\bar{x}} = \frac{s}{\sqrt{n}} = 0.600$		
T - table Value	$t_{90, n-1 \text{ df}} = 2.132$		
CI _{.90}	$CI_{.90} = t_{90} \times s_{\bar{x}} = 1.279$	$CI_{.90} \times PM = 256$	spots/ha
LCL	$LCL = \bar{X} - CI_{.90} = 4.121$	$LCL \times PM = 824$	spots/ha
Target Planting Density	1,400 spots/ha		
Desired Precision (e)	$e = 0.1\bar{X} \text{ OR } 0.5 = 0.540$	$e \times PM = 108$	spots/ha
# of Plots to meet Precision	$n = \frac{t^2 s^2}{e^2} = 0$		
Recommendation	Fill Plant 2012		