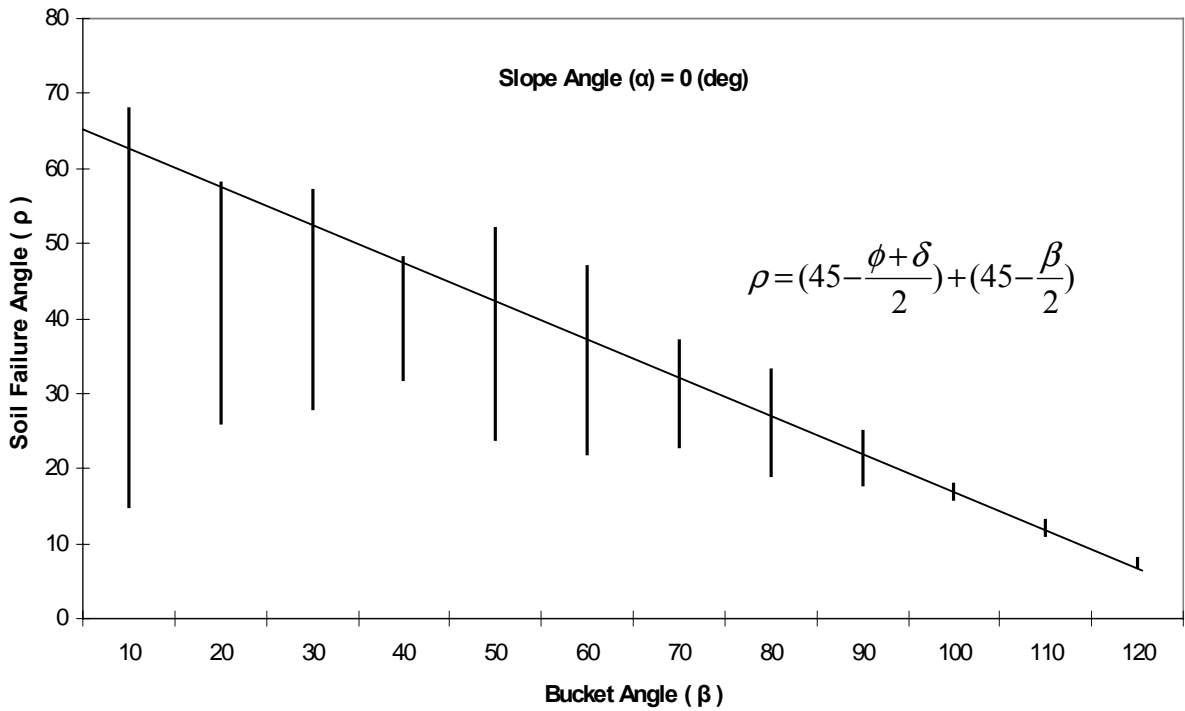


Appendix C

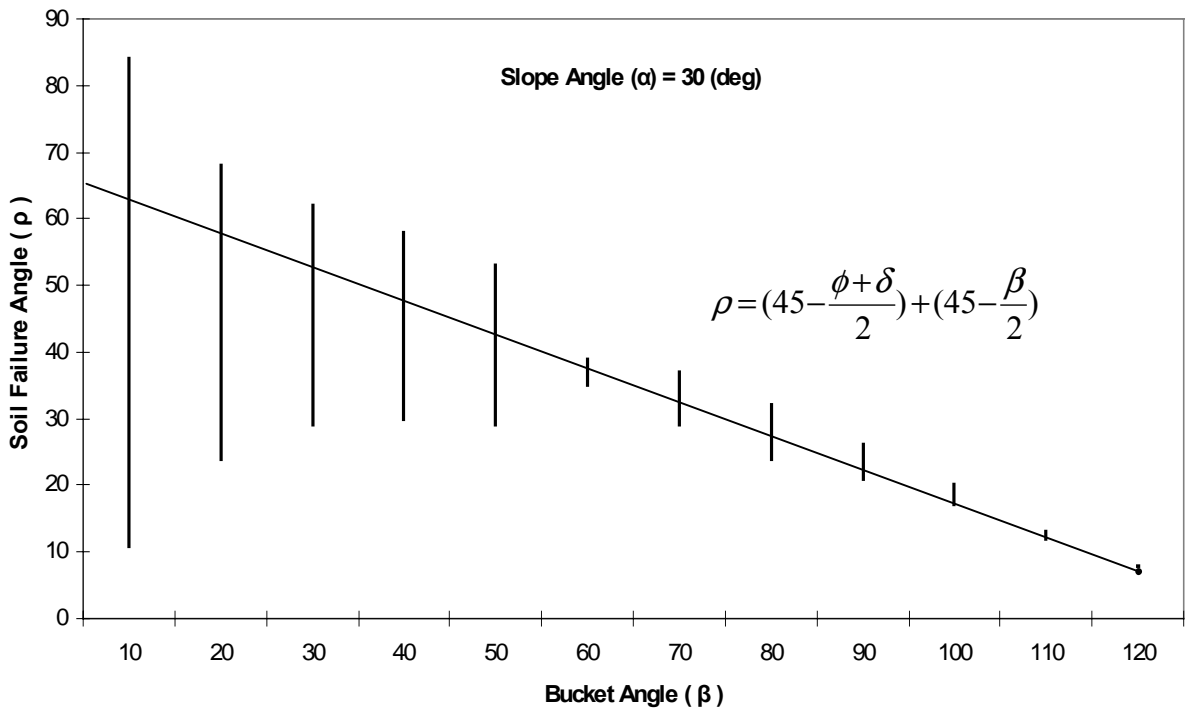
ρ (Soil Failure Angle)- β (Separation Blade Angle with respect to Terrain Surface Angle) Diagrams for Different Angles of α (Angle between an Inclined Terrain Surface and a Horizontal Plane)

Soil Properties	
Φ (deg)	30
δ (deg)	15
c (psi)	2
ca (psi)	1
γ (lb/in ³)	0.05787037
K_o	1



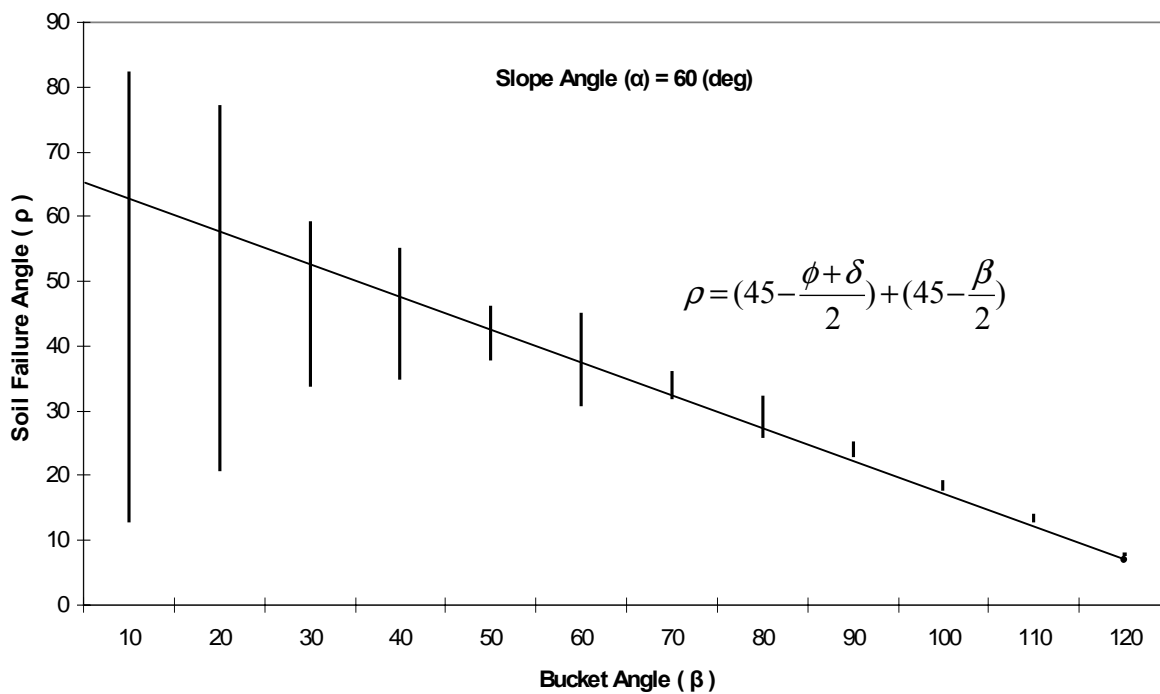
Soil Wedge Dimensions	
B (Blade width: in)	35
L (Soil-Contact Length: in)	22.2
D (Blade Depth: in = $L * \sin\beta$)	22.2
α (Slope Angle: deg)	0
z (Centroid of A2 from the Wedge Top: in)	7.4

Soil Properties	
Φ (deg)	30
δ (deg)	15
c (psi)	2
ca (psi)	1
γ (lb/in ³)	0.05787037
Ko	1



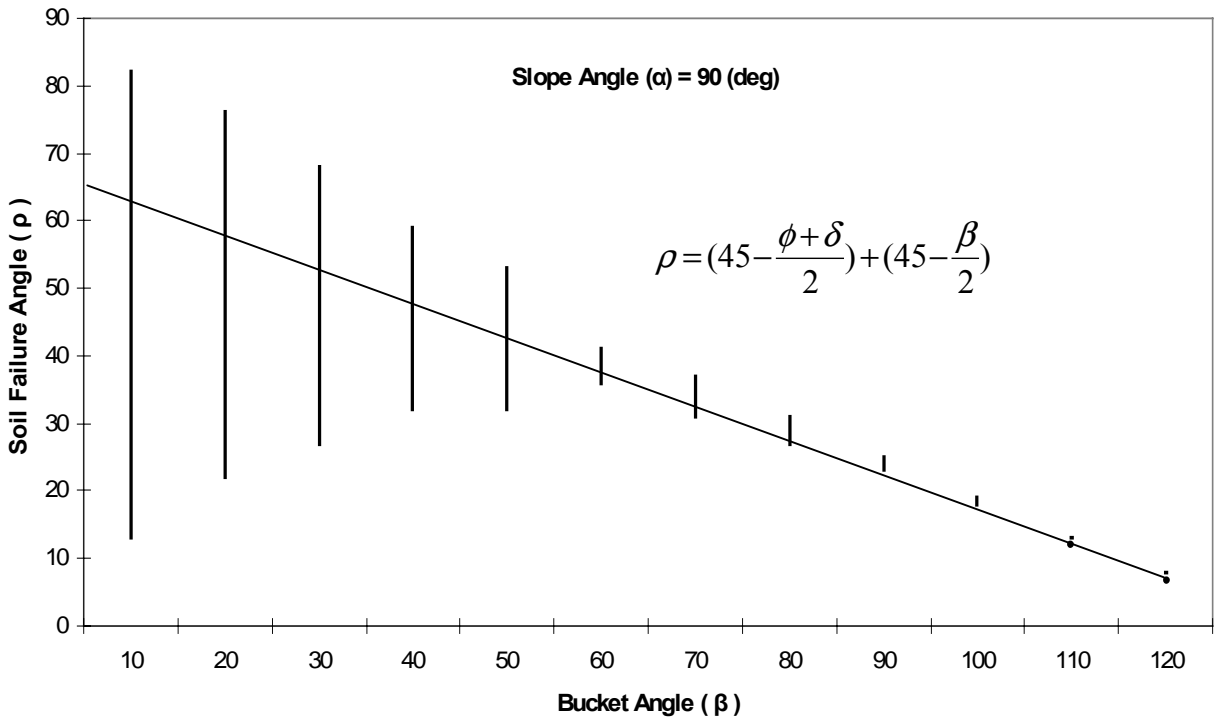
Soil Wedge Dimensions	
B (Blade width: in)	35
L (Soil-Contact Length: in)	22.2
D (Blade Depth: in = L * s in β)	21.86273212
α (Slope Angle: deg)	30
z (Centroid of A2 from the Wedge Top)	424.4587534

Soil Properties	
Φ (deg)	30
δ (deg)	15
c (psi)	2
ca (psi)	1
γ (lb/in ³)	0.05787037
Ko	1



Soil Wedge Dimensions	
B (Blade width: in)	35
L (Soil-Contact Length: in)	22.2
D (Blade Depth: in = L * sin β)	3.854989544
α (Slope Angle: deg)	60
z (Centroid of A2 from the Wedge Top)	134.4628043

Soil Properties	
Φ (deg)	30
δ (deg)	15
c (psi)	2
ca (psi)	1
γ (lb/in ³)	0.05787037
Ko	1



Soil Wedge Dimensions	
B (Blade width: in)	35
L (Soil-Contact Length: in)	22.2
D (Blade Depth: in = L * sin β)	3.854989544
α (Slope Angle: deg)	90
z (Centroid of A2 from the Wedge Top)	154.5223794