

Figure 1 Erosion pan with 300 mm wide by 450 long test area and 200 mm buffer areas surrounding all sides

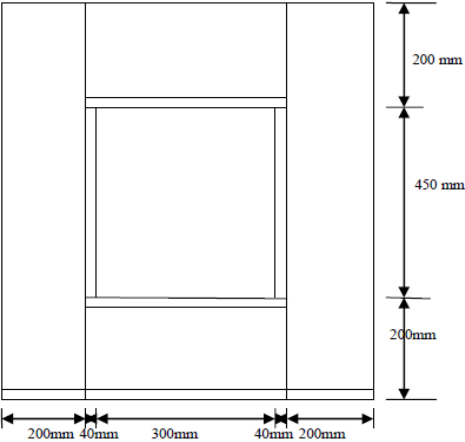


Figure 2. Data collection from the test area of the erosion pan



Figure 3. FEL 3 rainfall simulator and erosion pan



Table 1. The different combinations of pressure, disc speed, and aperture opening effect on the rate and uniformity of rainfall intensity.

Discspeed(Rev min <sup>-1</sup> )	Aperture size	Pressure Bar	Mean intensity	Coefficient of uniformity
20	5	0.3	30.20	52.45
20	5	0.5	40.64	54.80
30	5	0.2	36.80	53.40
30	5	0.5	67.5	67.3
40	5	0.2	74.52	75.28
40	5	0.4	84.93	68.75
40	5	0.5	86.55	69.41
50	5	0.3	78.16	73.41
50	5	0.5	77.74	76.72
60	5	0.2	66.83	51.70
60	5	0.4	56.20	71.53
60	5	0.5	62.50	73.68
60	5	0.6	67.80	76.40
70	5	0.4	66.80	60.06
70	5	0.5	70.16	73.68
60	10	0.4	121.05	93.80
60	10	0.5	122.64	89.05
60	10	0.6	126.38	94.10
70	10	0.4	110.64	87.43
70	10	0.5	120.27	89.56
60	15	0.4	150.9	88.95
60	15	0.5	166.30	92.06
70	15	0.4	153.44	88.86
70	15	0.5	172.24	88.64
60	20	0.4	188.72	89.34
60	20	0.5	197.10	91.69
70	20	0.4	195.5	85.0
70	20	0.5	208.10	90.33

Table 2. Correlation between erosion variables

Variables	Correlation	Probability
Change in runoff rate Vs change in sediment yield	0.47	0.420
(with increase in slope; among Soil A and antecedent moistures) Change in runoff rate Vs change in sediment yield	0.96	0.008
Change in runoff rate Vs change in sediment yield	0.45	0.440
Runoff rate Vs sediment yield	0.66	0.003
runoff rate Vs sediment yield	0.40	0.096
Change in runoff rate Vs change in sediment yield	0.83	0.001
Change in splash Vs change in sediment yield	0.79	0.214
Change in splash Vs change in sediment yield	0.36	0.419
Change in splash Vs change in sediment yield	0.97	0.038
Change in splash Vs change in sediment yield	0.426	0.077
Splash Vs sediment yield	0.399	0.110
Splash Vs sediment yield	0.71	0.009

Figure 4. Sediment yield (soil loss) at the three levels of slope steepness for 70mm/hr Rainfall intensity application

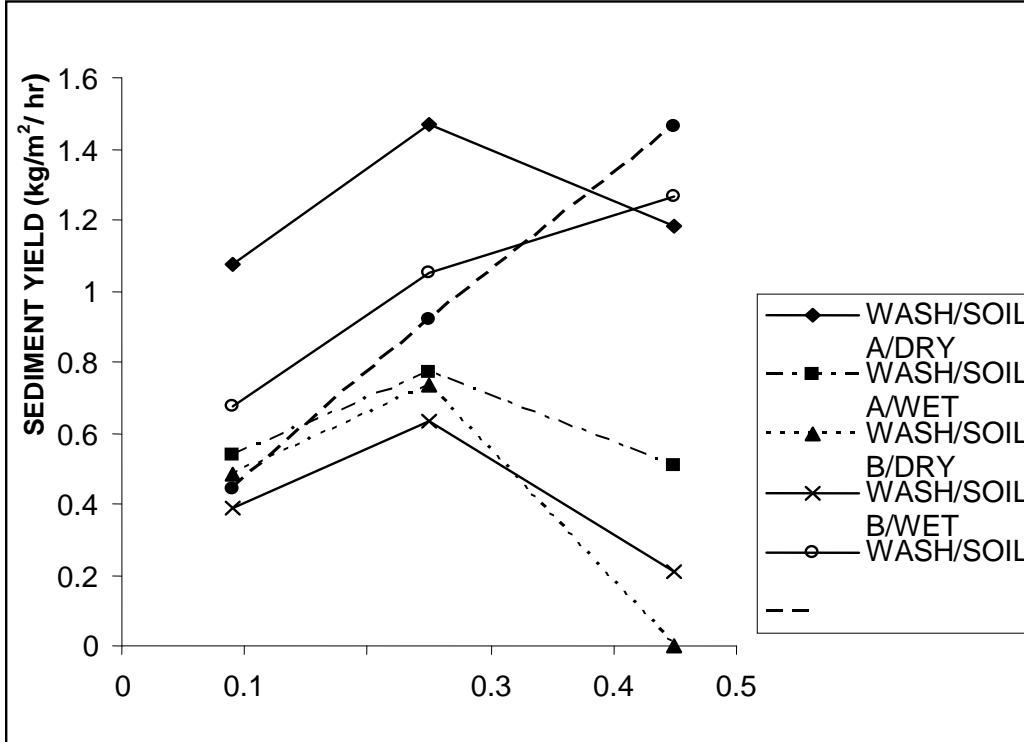


Figure 5. Sediment yield at the three levels of slope steepness for 120 mm/hr rainfall intensity application.

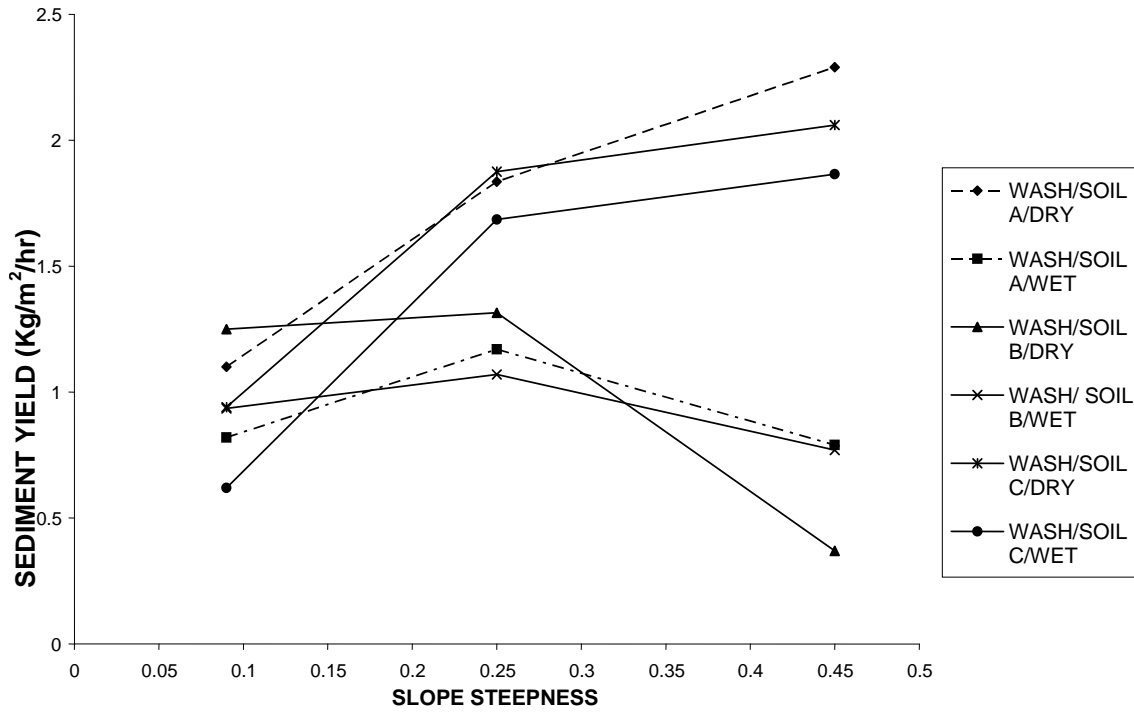


Figure 6. Sediment yield (soil loss) at the three levels of slope steepness for 55 mm/hr rainfall application

