TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE — SOIL CONSERVATION SERVICE

TN - Agronomy - 20

Berkeley, California
November 1970

EROSION AND SEDIMENTATION EVALUATION

The following table is adapted from Oregon Technical Note Agronomy 5 carrying the same title. The information should be helpful to conservationists in demonstrating the dual damaging influence of soil movement by water as "erosion" and "deposition".

Soil Loss Per Acre				Resulting Total Annual Deposition			
Per Year		Per 100 Years		Cubic Yards		Acre Feet	
Inches	Tons	Inches	Tons	Per Ac.	Per 10 Ac.	Per 100 Ac.	Per 1000 Ac.
1/32	5	3-1/8	500	4	42	0.26	2.6
1/16	10	6-1/4	1000	8	85	0.52	5.2
1/8	20	12-1/2	2000	17	170	1.04	10.4
1/4	40	25	4000	34	340	2.08	20.8
1/2	80	50	8000	68	680	4.15	41.5
1	160	100	16000	136	1358	8.32	83.2

One acre foot = 1632 cubic yards = approximately 1958 tons

One cubic yard = approximately 2400 pounds

Information in this form can be used to show the importance of land treatment to minimize soil movement in watersheds above proposed downstream works of improvement (channels, reservoirs, etc.). It can also be used to demonstrate the need for erosion control on slopes above valley lands being prepared for crops or other intensive use.

The table should prove useful to SCS technicians in demonstrating soil area - volume - weight relationships to cooperators when this information is needed in planning conservation treatment.

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