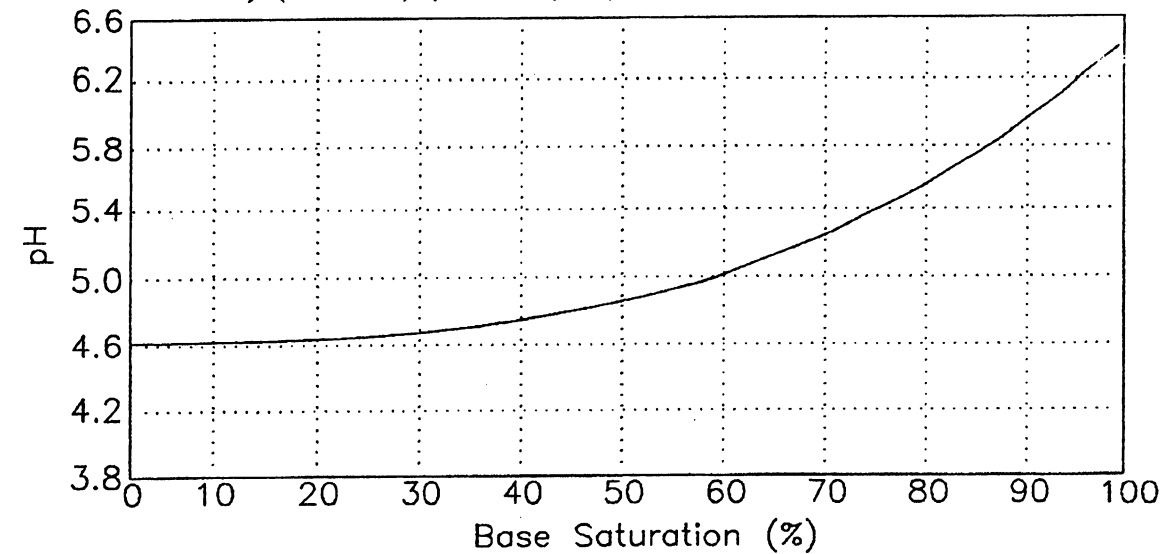


Soil's pH	Ca(OH) <sub>2</sub> (Lb/Ac)	CaCO <sub>3</sub> (Lb/Ac)	CaO (Lb/Ac)
3.00	6,805	9,183	5,152
3.10	6,805	9,183	5,152
3.20	6,805	9,183	5,152
3.30	6,805	9,183	5,152
3.40	6,805	9,183	5,152
3.50	6,805	9,183	5,152
3.60	6,805	9,183	5,152
3.70	6,805	9,183	5,152
3.80	6,805	9,183	5,152
3.90	6,805	9,183	5,152
4.00	5,943	8,021	4,500
4.10	5,943	8,021	4,500
4.20	5,943	8,021	4,500
4.30	5,943	8,021	4,500
4.40	5,943	8,021	4,500
4.50	5,943	8,021	4,500
4.60	5,943	8,021	4,500
4.70	4,221	5,696	3,195
4.80	3,101	4,185	2,348
4.90	2,326	3,138	1,761
5.00	1,723	2,325	1,304
5.10	1,421	1,918	1,076
5.20	1,034	1,395	783
5.30	689	930	522
5.40	345	465	261
5.50	129	174	98

Soil Order: Inceptisols with Acid Subsoils

$$y = (4.6284796) + (0.0000018) * X + (0.0000018) * X^2 + (0.0000018) * X^3$$



NOTE:

LIME REQUIREMENT FOR pH ADJUSTMENT SHALL BE PAID USING HYDRATED LIME (Ca(OH)<sub>2</sub>) AS THE REFERENCE CHEMICAL AMENDMENT. IF A DIFFERENT TYPE OF LIMING MATERIAL IS USED, THE EQUIVALENT AMOUNT NEEDED SHALL BE ESTIMATED USING THE NEUTRALIZING POWER OF THE LIMING MATERIAL, AND THEREFORE THE PAY FACTOR SHALL BE ADJUSTED TO COMPENSATE FOR THE CORRESPONDING NEUTRALIZING POWER OF THE MATERIAL. THE NEUTRALIZING POWER OF CALCIUM CARBONATE (CaCO<sub>3</sub>) IS 74 PERCENT THAT OF HYDRATED LIME, AND CALCIUM OXIDE (CaO) HAS A NEUTRALIZING POWER 132% HIGHER THAN HYDRATED LIME. THE TERM PF INDICATES THE PAY FACTOR THAT WILL BE APPLIED TO EACH MATERIAL; IF THE SAME TONNAGE OF EACH MATERIAL IS APPLIED IN A PROJECT, ONLY 74% OF THAT TONNAGE SHALL BE PAID IF CALCIUM CARBONATE IS APPLIED, OR 132% OF THE TONNAGE SHALL BE PAID IF CALCIUM OXIDE IS APPLIED.

	Bulk Den. (g/cc)	Weight Lb/Ac.	CEC meq/100gr
Max	1.49	2,024,106	31.20
Avg	1.28	1,738,829	13.37
Min	1.09	1,480,722	3.50

MATERIAL	PAY FACTOR
Ca(OH) <sub>2</sub>	1.00
CaCO <sub>3</sub>	0.74
CaO	1.32

EFFECTIVE DATE: MAY 1998

COMMONWEALTH OF PUERTO RICO DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY AND TRANSPORTATION AUTHORITY						
<b>EROSION CONTROL pH CALCULATION LIME REQUIREMENTS FOR ACID SOILS</b>		RECOMMENDED BY: <i>[Signature]</i> DESIGN AREA DIRECTOR DATE: 10/15/98				
		APPROVED BY: <i>[Signature]</i> EXECUTIVE DIRECTOR DATE: 2-2-98				
		APPROVED BY: <i>[Signature]</i> DIV. ADM. FHWA-PR DIVISION DATE: 5-15-98				
		<table border="1"> <thead> <tr> <th>DATE</th> <th>REVISION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>05-07-1998</td> <td>GENERAL REVISION</td> <td>L.V.</td> </tr> </tbody> </table>	DATE	REVISION	BY	05-07-1998
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05-07-1998	GENERAL REVISION	L.V.				
STD. DWG.	ER 5 OF 20					