

Results

The concentrations of metal totals obtained in the characterizations of the soils, confirming that soil is highly contaminated with these metals and only type 'D' is recommended for industrial zones according NOM-147 and USEPA2002 and limits showed in table 2. The concentrations of metal solubles obtained in the characterizations of the soils are shown in table 3, the soil type 'F' exceeds the recommended concentrations for Cd & Zn.

Table 2.- Concentrations of metals totals

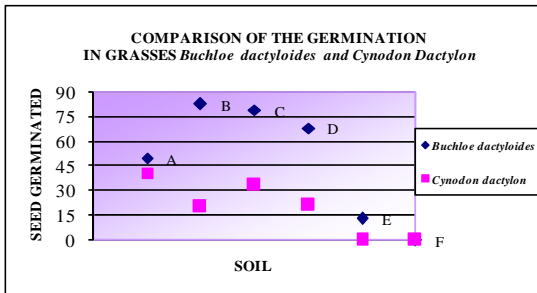
SOIL	CONCENTRATIONS (mg-Kg ⁻¹)							
	As (NOM-147)		Cd (NOM-147)		Pb (NOM-147)		Zn (USEPA2002) of the región 9	
	R	22	R	37	R	400	R	200
	I	260	I	450	I	800	RSH	3000
A	2153,30	82,58	6340,38	8082,77				
B	2447,15	98,72	6227,56	11441,56				
C	1171,16	200,52	9172,16	9506,29				
D	27,61	4,60	401,56	229,49				
E	2549,33	142,91	5516,44	15309,95				
F	2956,18	126,89	5455,38	14502,99				

R: residential I: industrial RSH: risk to the human health.

Table 3.- Concentrations of metals soluble

SOIL	Concentrations (mg-L ⁻¹)			
	As	Cd	Pb	Zn
	0,500	0,100	0,500	
A	0,086	0,040	0,031	1,281
B	0,103	0,046	0,064	1,620
C	0,082	0,096	0,052	0,166
D	0,129	0,004	0,044	0,051
E	0,096	0,007	0,103	0,513
F	0,074	0,361	0,017	29,509

Results of germination in % are shown in graph 1 It can be noted that the grass *Buchloe dactyloides* shows the best germination.

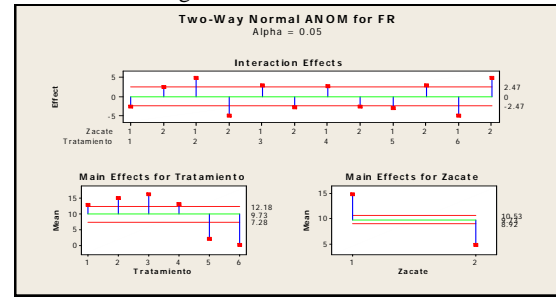


Graph 1. - Comparison of the germination

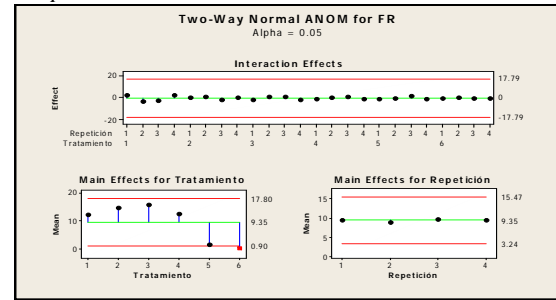
Statistic analysis (graphs 2 and 3), indicates that we have no difference between treatments A, B, C, D, where the same germination results will be obtained with a pH soil ranging between 6 and 8.

Between treatments D and F we can see no differences. Tukey means were compared and the coefficient of variation of the Grass *Buchloe dactyloides* was 22, 9%,

and in the grass *Cynodon dactylon* was 41, 4%, this indicated that use of grass *Buchloe dactyloides* will be more efficient in germination.



Graph 2. - Means of treatment and seeds



Graph 3. - Means of treatment and repetitions

Conclusions

Soils with pH with ranges between 6 to 8 have more potential and same germination results will be obtained. In soils with pH <5 and > 9 will be obtaining same germination results, and not exist any difference between one soil much acid and one soil much alkaline. In the seeds we have a difference between them, obtaining better result and major potential the grass *Buchloe dactyloides* (1).

References

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