

**PEDOLOGICAL STUDIES ON SOME SOILS OF
THE NORTH-EASTERN COAST IN THE REGION
BETWEEN EL-ARISH AND RAFAA**

BY

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B.Sc. in Agriculture (Soil Science), Ain Shams University 1989.



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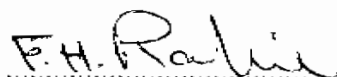
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B.Sc. in Agriculture (Soil Science), Ain Shams University, 1989

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ABSTRACT

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The study area occupies the North Eastern part of Sinai Peninsula and covers an area of about 1800 km². It is bounded by longitudes 34° 00' and 34° 29' East, and latitudes 30° 41' and 31° 20' North. In general, the North eastern part of Sinai Peninsula is dominated by the arid climate, which is similar to the Mediterranean at the extreme northern part. Landforms present in the studied area are the coastal plain, piedmont plain, foot slopes, Wadi El-Arish, Wadi El Azarek, and Wadi El Amr.

Twenty five soil profiles were described and 110 samples, representing the successive horizons, were analyzed.

Morphology of the representative profiles and the surrounding area were studied carefully. Statistical size parameters, "Sorting" "Skewness" and "Kurtosis" were illustrated to throw some light on the homogeneity of the soil profile. Mineralogical composition of the clay fractions indicated that smectite is the dominant mineral followed by kaolinite, illite, palygorskite, feldspars and quartz are present in much less amounts.

Soil classification; according to USDA Taxonomy (1975) and its Key (1994) showed that *Entisols* and *Aridisols* are the main orders which included five subgroups. Three land evaluation systems were applied and indicated that the studied soils are either, marginally suitable, currently not suitable or permanently not suitable for agriculture.

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Key Words, Soils of North Sinai, Morphology, Genesis, Mineralogy, Classification, Evaluation.

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CONTENTS

	Page
1. INTRODUCTION	1
2. PHYSIOGRAPHIC FEATURES	3
2.1. Location	3
2.2. Climate	3
2.3. Geology	11
2.3.1. General aspects	11
2.3.2. Geology of north eastern Sinai Peninsula	12
2.4. Geomorphology	14
2.4.1. General aspects	14
2.4.2. Geomorphology of north Sinai peninsula.....	16
2.5. Water resources	19
3. MATERIALS AND METHODS	21
3.1. Field work	21
3.2. Chemical analyses	21
3.3. Physical analyses	21
3.4. Mineralogical analysis of clay fractions	22
4. RESULTS AND DISCUSSION	24
4.1. Soil morphology	24
4.1.1. Soils of the coastal plain	24
4.1.2. Soils of the piedmont plain	29
4.1.3. Soil of the foot slopes	34
4.1.4. Soil of Wadi El Azarek	34
4.1.5. Soil of Wadi El Arish	39
4.1.6. Soils of Wadi El Amr	42
4.2. Soil genesis	45
4.2.1. Soil climate	45
4.2.2. Biological activity	47
4.2.3. Relief	47
4.2.4. Time	47

CONTENTS (Cont.)

	Page
4.2.5. Parent material	48
4.2.5.1. Uniformity of soil parent materials	49
4.2.5.2. Mineralogical composition of the clay fraction	65
4.3. Soil classification	70
4.4. Land capability classification	78
4.4.1. Sys and Verhey system	78
4.4.2. Modified Storie index	82
4.4.3. Land capability classification according to Abd El Mouteleb and Hussien	85
5. SUMMARY	90
6. REFERENCES	92
APPENDIX: Description of soil profiles	96
ARABIC SUMMARY.	

LIST OF TABLES

Table No.		Page
1	Meteorological data of El-Arish	5
2	Meteorological data of El-Quasima	6
3	Meteorological data of Rafaa	7
4	Chemical properties of the coastal plain soil	25
5	Particle size distribution of coarse textured soils of the coastal plain.	27
6	Chemical properties of coastal plain soils.	30
7	Particle size distribution of coarse textured soils of the piedmont plain.	31
8	Particle size distribution of moderately textured soils of the piedmont plain.	32
9	Chemical properties of foot slopes soils.	35
10	Particle size distribution of the sandy soils of the foot slopes.	35
11	Chemical properties of Wadi El Azarek soils.	36
12	Particle size distribution of the sandy soils of Wadi El-Azarek	37
13	Particle size distribution of moderately textured soils of Wadi El Azarek.	38
14	Chemical properties of Wadi El Arish soils.	40
15	Particle size distribution of Wadi El Arish soils.	41

LIST OF TABLES (Cont.)

Table No.		Page
16	Chemical properties of Wadi El Amr soils.	43
17	Particle size distribution of Wadi El Amr soils	44
18	Mean soil temperature of Rafaa (1953-1965) and El - Arish (1962-1967)	46
19	Statistical size parameters and intervals of Folk and Word equation of the studied area.	51
20	Land evaluation according to Sys and Verhey (1978).	80
21	Land evaluation of the north eastern Sinai according to Storie index	84
22	Land evaluation, according to Abd El Moutelb and Hussien.	89

LIST OF FIGURES

Figure No.	Page
1 Location map of the studied area	4
2 Isohyetal map for Sinai Peninsula.	8
3 Piche evaporation intensity map of Sinai Peninsula.	9
4 Relation between temperature and evaporation (El Arish Station)	10
5 Surface geology map of the north eastern Sinai.	13
6 Geomorphology map of Sinai Peninsula.	15
7 Gemorphological units of the studied area.	18
8 Profile location map.	23
9 Cumulative frequency of sand fraction of the coastal plain profiles (1 and 2).	54
10 Cumulative frequency of sand fraction of the coastal plain profiles (3 and 4).	55
11 Cumulative frequency of sand fraction of the coastal plain profiles (5 and 6).	56
12 Cumulative frequency of sand fraction of the coastal plain profiles (15 and 16).	57
13 Cumulative frequency of sand fraction of the coastal plain profile (17).	58
14 Cumulative frequency of sand fraction of the piedmont plain profiles (18 and 22).	59