CENTRAL ANATOLIA INTEGRATED BROILER PRODUCTION MODEL PROJECT

A PREFEASIBILITY STUDY

(ANNEXES)

Prepared by

AGROTEK LTD., as Contractor
and
TENNECO, INC., as sub - Contractor
for
THE STATE PLANNING ORGANIZATION
OF THE PRIME MINISTRY
OF THE REPUBLIC OF TURKEY
and
THE AGENCY FOR INTERNATIONAL DEVELOPMENT
OF THE UNITED STATES OF AMERICA
(Sub-contract-II, USAID Project No. 298-0050)

February, 1986

AGRÖTEK

TARIM SANAYİ VE TİCARET LİMİTED ŞİRKETİ

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CENTRAL ANATOLIA

INTEGRATED BROILER PRODUCTION

MODEL PROJECT

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ANNEX-I

A.I. METEOROLOGICAL DATA OF THE REGION

A.I.1. DEFINITIONS OF BASIC METEOROLOGICAL ELEMENTS

DAILY MEAN: Daily mean temperature is found by the following formula based on observations to be made at 07.00, 14.00 and 21.00 o'clcoks by the local time:

$$\text{Daily mean temperature} = \frac{07.00 + 14.00 + 2(21.00)}{4}$$

MONTHLY MEAN: Total of daily means of the days of that month is divided by number of the days of that month.

YEARLY MEAN: Total of monthly means is divided by 12.

DAILY TOTAL: Addition of previous day's 14.00 and 21.00 values to the present day's 07.00 value. This value gives precipitation height(mm) or weight(kg).

DAILY MEAN(Leap years) : Daily totals divided by the number of the years.

MONTHLY MEAN(Leap year): Monthly totals divided by the number of the years.

SOURCE: ORTALAMA EKSTREM SICAKLIK VE YAĞIŞ DEĞERLERİ BÜLTENİ (GÜNLÜK-AYLIK)-T.C.BAŞBAKANLIK DEVLET METEOROLOJİ İŞLERİ GENEL MÜDÜRLÜĞÜ-ANKARA, 1984.

MEAN VAPOUR PRESSURE (mb): Tension of aquaeous vapour expressed by mercury height in barometer.

MEAN RELATIVE HUMIDITY (%): Ratio of amount of vapour to the saturated vapour tension at the same temperature.

MEAN CLOUDINESS (0-10): Monthly and yearly mean of cloudiness observed during observation hours.

MEAN EVAPORATION (mm) (Wild): Monthly and yearly mean of evaporation measured in the shade by the Wild evaporameter placed 2 meters high from the ground. This value represents the weight of evaporating vapour in kilograms.

MEAN NUMBER OF SNOWY DAYS: Monthly and yearly mean number of the snow days with snow-water equal to or more than 0.1 mm.

MEAN NUMBER OF HAILY DAYS: Monthly and yearly mean number of the haily days with hail-water equal to or more than 0.1 mm.

MEAN WIND SPEED (m/sec): Monthly and yearly mean speed of wind measured at 10 meters high from the ground expressed by meters per second.

MEAN SOIL TEMPERATURE (C^{o}-10 cm): Monthly and yearly mean soil temperature measured at 10 cm.

MEAN INSOLATION PERIOD (hour/minute): Mean insolation period for 24 hours period.

SOURCE: MEAN EXTREME METEOROLOGICAL BULLETIN; MINISTRY OF FOOD, AGRICULTURE AND ANIMAL HUSBANDRY-STATE METEOROLOGICAL SERVICE; 1974-ANKARA.

EXTREME HIGH TEMPERATURE: Maximum of stational montly maximum values of the region.

EXTREME LOW TEMPERATURE: Minimum of stational monthly minimum values of the region.

REGIONAL MEAN TEMPERATURE: Total of stational monthly mean values divided by number of stations in the region.

CONVERSION FORMULA(From Centigrade to Fahrenheit): $F^{o}=32+1.8\ C^{o}$

Note:

* : No Information

0.0: Value Acceptable as zero

. : No such an event

STATION : ANKARA
LATITUDE : 39 57
LONGITUDE : 32 53
STATION ELEVATION : 894 M.

MAXIMUM TEMPERATURE

OBSERVATION PERIOD : 1926-1980 (55)

YEARLY MAXIMUM VALUE : 1 8 1954 40.0

DAYS	JANUARY	YEAR	FEBRUARY	YEAR	MARCH	YEAR	APRIL	YEAR	MAY	YEAR	JUNE	YEAR	JULY	YEAR	AUGUST	YEAR	SEPTEMBER	YEAR	OCTOBER	YEAR	NOVEMBER	YEAR	DECEMBER	YEAR
1	15.5	71	13.8	62	23.7	58	26.4	77	29.5	35	33.2	69	35.2	38	40.0	54	35.5	29	32.2	52	24.7	61	17.0	61
2	13.9	71	15.7	28	20.5	44	28.4	77	30.7	29	32.6	69	34.9	59	37.6	77	35.6	38	33.0	52	25.3	26	20.4	56
3	13.1	53	13.6	36	20.5	66	31.1	52	30.7	29	33.4	69	34.4	54	36.7	36	33.9	34	33.3	52	24.2	59	17.7	39
4	16.3	71	14.4	36	20.6	66	29.6	52	30.3	29	33.0	62	34.7	80	36.1	29	34.1	51	31.3	43	23.2	48	17.6	80
5	14.7	71	12.4	46	18.9	62	29.3	52	28.7	29	32.4	65	36.3	58	36.9	29	35.0	52	30.9	40	23.8	48	16.4	61
6	13.5	71	13.6	70	21.4	62	27.0	32	31.4	60	32.6	35	35.8	70	37.5	62	35.6	52	30.6	40	22.4	48	15.8	35
7	15.2	71	14.9	55	21.7	47	27.5	75	29.6	60	33.5	32	35.5	62	35.8	62	35.6	52	29.0	74	24.0	49	16.0	36
8	14.4	70	15.7	52	20.9	32	27.7	75	29.4	43	32.7	32	37.3	78	38.5	62	35.3	52	29.1	74	22.8	36	16.6	40
9	15.3	71	12.9	58	17.2	37	26.4	75	30.6	28	34.6	32	37.6	55	36.8	62	35.7	52	29.4	37	21.6	26	16.0	67
10	12.3	59	13.7	73	20.7	37	25.7	53	31.5	73	33.3	55	35.4	77	37.0	30	35.5	52	29.4	37	21.2	27	17.2	40
1. 10 DAYS	16.3	71	15.7	52	23.7	58	31.1	52	31.5	73	34.6	32	37.6	55	40.0	54	35.7	52	33.3	52	25.3	26	20.4	56
11	13.0	31	13.5	58	17.2	41	25.0	75	30.0	39	34.4	55	35.4	80	36.0	48	34.4	46	28.3	74	21.9	33	14.7	47
12	11.1	31	17.2	35	19.3	58	30.6	70	30.7	70	36.0	55	37.0	80	37.0	45	33.8	46	28.8	60	22.7	27	14.5	65
13	15.0	60	18.6	79	22.1	31	24.5	57	30.7	58	33.4	78	36.8	48	36.0	51	32.4	31	27.9	64	22.5	27	15.7	67
14	13.4	31	18.4	77	23.1	31	30.0	57	30.8	29	34.8	78	36.4	54	37.2	60	34.2	31	29.2	80	22.7	61	16.3	57
15	14.1	70	15.7	77	21.7	34	26.9	37	30.1	62	33.5	41	35.6	54	38.0	48	35.5	31	28.4	64	22.1	61	15.3	57
16	13.5	70	19.0	73	23.6	31	30.0	57	30.5	42	34.0	41	35.8	80	35.1	61	31.9	37	27.0	60	21.6	27	16.6	57
17	14.2	62	17.0	57	22.7	70	26.7	28	31.0	39	34.9	41	38.6	62	36.8	61	33.7	71	28.0	74	20.4	62	16.7	57
18	14.7	55	17.4	58	19.5	60	25.8	56	30.3	58	34.1	28	38.8	62	36.6	54	33.0	71	27.2	73	20.4	46	13.3	58
19	14.6	55	18.3	55	22.6	32	28.8	59	30.8	28	33.4	42	38.3	62	36.9	63	33.2	35	26.4	75	19.5	79	13.9	37
20	15.0	39	17.6	55	24.3	30	28.2	50	30.6	35	34.4	79	37.9	54	37.6	63	34.1	35	26.3	39	20.3	75	14.9	37
2. 10 DAYS	15.0	39	19.0	73	24.3	30	30.6	70	31.0	39	36.0	55	38.8	62	38.0	48	35.5	31	29.2	80	22.7	61	16.7	57
21	14.0	48	17.2	55	24.7	32	29.2	50	32.7	39	33.8	75	35.1	75	37.5	45	32.3	37	27.0	39	18.2	63	13.1	55
22	14.6	48	16.9	57	23.6	57	30.7	50	32.0	62	34.9	42	36.2	31	37.8	79	33.1	37	27.8	64	18.4	66	14.0	63
23	13.6	48	16.0	41	23.7	75	31.6	28	30.6	45	36.4	42	36.6	40	37.0	77	33.1	37	25.7	32	19.3	62	15.2	63
24	10.9	28	17.7	77	24.1	37	28.9	28	31.9	35	33.6	55	36.9	72	36.8	77	34.1	37	25.8	32	20.7	62	12.7	80
25	12.5	56	18.1	77	25.4	37	30.8	28	32.8	45	34.4	73	37.9	72	37.2	45	34.6	37	25.2	64	18.8	60	10.8	60
26	13.1	56	19.0	77	26.0	47	28.3	26	33.3	45	34.7	47	36.6	72	37.6	58	33.8	37	27.5	60	19.2	62	12.5	60
27	10.6	39	19.3	58	25.4	47	28.2	26	33.7	45	34.8	80	37.5	30	36.7	29	33.5	45	26.1	31	20.0	62	11.5	52
28	13.1	39	20.4	58	25.6	40	28.0	79	31.5	45	35.6	80	37.5	51	37.4	69	32.3	43	27.9	31	18.4	62	15.5	60
29	13.2	30	16.2	36	26.6	40	29.4	79	30.9	57	33.9	57	37.0	57	36.1	35	31.2	43	27.3	31	16.1	61	14.8	68
30	12.6	39	*	*	26.4	52	30.0	70	31.0	61	36.3	74	38.0	57	37.1	28	31.8	43	25.9	31	16.9	61	12.6	78
31	16.4	51	*	*	28.5	52	*	*	34.4	35	*	*	37.5	57	35.8	75	*	*	26.0	33	*	*	12.6	77
3. 10 DAYS	16.4	51	20.4	58	28.5	52	31.6	28	34.4	35	36.4	42	38.0	57	37.8	79	34.6	37	27.9	31	20.7	62	15.5	60
MONTHLY MAX	16.4	51	20.4	58	28.5	52	31.6	28	34.4	35	36.4	42	38.8	62	40.0	54	35.7	52	33.3	52	25.3	26	20.4	56

A.I.1/4

STATION : ANKARA
LATITUDE : 39 57
LONGITUDE : 32 53
STATION ELEVATION : 894 M.

MINIMUM TEMPERATURE

OBSERVATION PERIOD:1926-1980 (55)

YEARLY MINIMUM VALUE : 5 1 1942 -24.9

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
1	-17.0 73	-15.3 72	-15.3 43	-6.0 32	1.7 64	4.3 34	8.0 53	11.5 31	7.4 26	-0.8 70	-2.6 73	-10.0 27
2	-18.0 73	-22.2 50	-16.2 43	-3.5 33	2.6 55	4.4 38	9.2 68	10.0 68	4.8 26	1.9 31	-7.5 31	-8.4 33
3	-18.7 42	-17.2 50	-12.6 28	-5.5 65	1.4 44	4.7 38	8.4 31	8.3 68	6.5 26	-0.9 31	-8.3 31	-10.3 41
4	-22.0 42	-18.5 50	-12.6 29	-6.3 44	2.2 31	4.7 60	8.0 43	8.7 51	7.2 40	-0.9 31	-9.0 31	-15.0 41
5	-24.9 42	-20.2 50	-16.3 29	-5.4 49	1.4 35	4.7 67	7.5 33	9.1 40	6.7 30	-1.1 30	-6.4 73	-13.4 33
6	-23.8 42	-20.5 72	-13.3 43	-5.1 26	1.9 44	5.8 50	8.4 60	11.6 28	5.8 30	-0.3 49	-6.9 73	-15.2 33
7	-15.0 79	-24.2 32	-13.3 43	-6.5 33	2.4 56	5.6 62	8.2 79	10.6 58	5.0 47	0.3 31	-6.2 31	-13.3 33
8	-14.8 35	-19.0 32	-12.4 53	-3.2 33	3.1 35	4.6 30	8.9 33	10.4 68	3.9 53	-1.6 71	-7.2 31	-16.5 41
9	-20.5 35	-20.5 29	-13.7 43	-1.6 42	3.4 35	3.8 58	9.7 52	10.3 28	5.1 53	-2.4 41	-8.8 56	-14.4 41
10	-17.7 35	-18.6 65	-14.8 43	-7.2 29	4.5 72	7.2 37	8.6 58	8.0 28	4.1 29	-1.4 41	-8.3 56	-10.4 53
1. 10 days	-24.9 42	-24.2 32	-16.3 29	-7.2 29	1.4 35	3.8 58	7.5 33	8.0 28	3.9 53	-2.4 41	-9.0 31	-16.5 41
11	-16.6 57	-17.0 56	-13.7 43	-5.6 29	3.3 53	5.6 76	4.5 58	8.0 73	5.7 75	-1.0 51	-10.5 56	-9.0 53
12	-16.8 50	-13.0 43	-8.0 45	-5.0 32	4.4 45	6.7 76	6.8 43	10.4 41	6.2 62	-1.2 48	-7.6 56	-8.8 53
13	-21.8 50	-12.8 59	-11.3 53	-4.7 39	4.0 64	5.8 36	7.6 43	7.0 50	5.9 33	-1.2 48	-3.0 56	-9.0 27
14	-23.0 50	-13.6 59	-11.5 49	-3.6 41	-0.2 31	5.9 29	9.4 35	9.8 74	4.1 29	-2.6 48	-8.0 48	-8.4 75
15	-23.8 50	-15.0 49	-13.0 49	-4.6 33	1.6 80	6.1 32	8.8 69	8.5 26	6.4 29	-3.0 50	-4.1 78	-10.4 51
16	-20.6 80	-15.3 49	-10.5 49	-5.3 33	2.2 31	6.9 31	10.0 69	7.4 33	4.6 56	0.0 50	-7.1 48	-11.5 45
17	-14.8 73	-12.3 27	-9.6 29	-2.4 31	2.7 41	7.0 68	10.7 69	10.7 75	1.8 32	-2.5 50	-8.4 41	-14.5 45
18	-14.0 64	-10.1 67	-10.1 29	-3.6 45	4.4 33	6.3 38	10.6 69	10.1 44	2.5 33	-3.8 56	-5.6 41	-14.4 45
19	-12.2 61	-8.4 76	-8.1 29	-3.5 29	2.8 52	6.7 58	10.6 69	8.6 78	3.0 33	-4.1 56	-5.2 45	-13.8 45
20	-16.6 76	-12.7 28	-9.5 31	-4.8 29	1.2 32	6.4 58	8.9 76	7.6 34	6.0 59	-3.2 56	-6.4 73	-14.2 53
2. 10 days	-23.8 50	-17.0 56	-13.7 43	-5.6 29	-0.2 31	5.6 76	4.5 58	7.0 50	1.8 32	-4.1 56	-10.5 56	-14.5 45
21	-21.2 76	-13.5 43	-8.1 31	-3.4 67	4.7 43	7.6 34	9.7 67	5.5 49	3.2 36	-1.9 56	-6.3 32	-12.5 43
22	-14.4 61	-12.2 43	-9.2 42	-2.9 45	4.2 42	8.0 71	10.0 48	7.4 49	3.0 59	-2.8 47	-7.9 32	-15.9 53
23	-14.6 29	-18.1 32	-12.8 42	-2.2 32	2.3 33	7.9 50	9.8 71	9.3 50	0.3 26	-3.0 77	-7.9 33	-18.0 53
24	-21.8 50	-15.9 32	-7.5 42	-2.6 32	3.2 55	9.4 78	9.7 78	6.3 60	3.3 51	-5.3 50	-6.1 41	-17.6 51
25	-24.4 50	-14.5 28	-7.6 53	0.6 49	1.7 44	8.5 60	10.8 78	9.0 48	4.5 61	-4.2 50	-7.1 53	-20.3 33
26	-17.2 50	-14.6 43	-7.6 29	0.0 59	0.8 40	8.3 45	12.6 35	8.3 36	3.1 56	-2.2 47	-13.4 53	-11.7 33
27	-20.0 50	-16.2 28	-7.5 43	-2.2 45	4.7 44	8.6 52	9.9 29	7.6 41	0.6 31	-3.0 65	-11.0 48	-16.0 53
28	-18.8 54	-17.0 43	-7.0 57	-1.3 32	3.6 56	7.4 52	11.7 56	5.6 44	2.4 38	-4.2 46	-13.4 53	-16.9 41
29	-20.5 54	-12.6 29	-8.5 56	0.0 48	4.3 67	8.1 48	10.8 50	6.7 36	-1.5 31	-2.6 65	-17.5 48	-16.8 41
30	-15.7 31	* *	-8.6 32	0.5 48	3.5 52	8.6 78	10.6 79	7.8 49	-0.2 31	-2.4 73	-12.5 53	-18.1 41
31	-16.0 72	* *	-6.8 31	* *	2.3 67	* *	10.3 79	6.5 65	* *	-3.4 51	* *	-24.1 41
3. 10 days	-24.4 50	-18.1 32	-12.8 42	-3.4 67	0.8 40	7.4 52	9.7 78	5.5 49	-1.5 31	-5.3 50	-17.5 48	-24.2 41
MONTHLY MIN	-24.9 42	-24.2 32	-16.3 29	-7.2 29	-0.2 31	3.8 58	4.5 58	5.5 49	-1.5 31	-5.3 50	-17.5 48	-24.2 41

A.I.1/5

STATION : ANKARA
LATITUDE : 39 57
LONGITUDE : 32 53
STATION ELEVATION : 894 M.

MEAN TEMPERATURE

OBSERVATION PERIOD : 1926-1980 (55)

YEARLY MEAN VALUE : 11.6

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	1.4	-0.1	2.5	9.8	14.1	18.0	21.9	23.6	21.1	15.4	10.5	3.9
2	0.7	-0.2	2.9	10.1	14.3	18.3	21.8	23.7	20.5	15.5	10.0	4.2
3	0.6	0.2	2.4	9.5	14.2	18.5	21.4	23.6	20.0	14.8	9.9	4.2
4	0.4	0.2	2.8	9.3	14.7	18.6	21.5	23.4	20.1	14.5	9.7	3.9
5	0.0	-0.3	3.1	9.8	14.5	18.3	21.6	23.5	20.1	13.8	9.6	3.8
6	-0.5	-0.5	3.3	9.9	14.5	18.4	21.9	23.6	19.8	13.9	9.7	3.5
7	0.0	0.1	4.1	9.9	14.0	18.6	22.3	23.5	19.7	13.6	9.5	3.3
8	0.4	-0.1	4.3	10.5	14.8	18.6	22.6	23.3	19.0	13.5	9.1	3.2
9	-0.3	-0.6	4.3	10.4	14.9	18.7	22.6	23.6	18.8	13.7	8.9	3.2
10	-0.6	0.1	4.5	9.9	14.9	19.0	22.5	23.6	18.5	13.7	9.2	3.3
1. 10 DAYS	0.2	-0.1	3.4	9.9	14.5	18.5	22.0	23.6	19.8	14.2	9.6	3.7
11	-0.7	0.9	4.4	9.7	15.2	19.3	22.2	23.0	18.5	13.5	9.1	3.3
12	-0.6	1.7	4.2	10.0	14.7	19.8	22.8	23.1	18.4	13.2	8.9	3.6
13	-0.4	1.8	4.2	9.6	14.4	19.4	23.1	23.1	18.4	12.9	8.6	3.0
14	-0.8	2.3	4.9	10.2	14.4	19.4	23.1	23.4	18.2	12.5	8.4	2.8
15	-0.9	2.4	5.5	10.6	14.3	19.6	23.1	23.3	18.3	12.7	8.2	2.5
16	-0.3	2.5	5.8	10.7	15.0	19.5	23.7	23.3	17.8	12.6	8.2	2.4
17	0.0	2.7	5.0	10.3	15.5	19.7	24.2	23.4	17.5	12.6	7.8	2.0
18	-0.1	2.4	4.7	10.6	15.8	20.4	24.5	23.4	17.4	12.6	7.1	1.8
19	-0.2	2.1	5.3	10.5	16.0	20.5	24.2	23.3	17.2	12.5	6.5	1.8
20	-0.4	2.1	5.5	10.9	16.6	20.4	23.8	23.4	17.3	11.6	6.0	1.5
2. 10 DAYS	-0.4	2.1	5.0	10.3	15.2	19.8	23.5	23.3	17.9	12.7	7.9	2.5
21	-0.3	2.0	6.2	11.5	17.3	20.4	23.9	23.4	17.2	11.4	5.3	1.2
22	-0.5	1.2	6.6	12.2	17.5	20.8	23.7	23.3	17.1	11.3	4.9	0.7
23	-1.2	1.1	6.8	13.1	17.2	20.8	24.1	22.9	16.9	11.2	5.1	0.5
24	-1.8	1.3	6.7	13.3	16.8	21.1	24.2	22.9	16.8	11.3	4.5	0.3
25	-1.7	1.4	6.5	13.5	16.7	21.2	24.1	22.6	16.5	11.0	4.8	0.7
26	-0.1	1.8	6.6	13.1	16.3	21.6	23.4	22.3	16.2	11.1	4.9	1.1
27	0.2	2.0	7.5	12.8	16.3	21.6	23.4	22.3	16.2	11.1	4.5	1.0
28	-0.1	2.1	8.1	12.8	16.9	21.5	23.7	22.0	15.6	10.6	3.8	1.2
29	-0.3	0.3	8.5	13.5	16.9	21.6	23.9	21.5	15.3	10.6	3.8	1.6
30	0.3	*	8.5	14.3	17.2	22.1	24.1	21.7	15.4	10.8	3.9	1.6
31	0.5	*	9.0	*	17.4	*	23.8	21.4	*	10.6	*	1.4
3. 10 DAYS	-0.5	1.5	7.4	13.0	17.0	21.3	23.8	22.4	16.3	11.0	4.6	1.0
MONTHLY MEAN	-0.2	1.1	5.3	11.1	15.5	19.9	23.1	23.1	18.0	12.6	7.4	2.4

A.I.1/6

STATION : ANKARA
LATITUDE : 39 57
LONGITUDE : 32 53

MEAN PRECIPITATION

YEARLY TOTAL : 385.81

OBSERVATION PERIOD : 1931 1980 (50)
STATION ELEVATION : 894 M.

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	1.08	1.07	0.98	0.94	1.17	1.32	0.12	0.29	0.77	0.19	0.79	2.13
2	1.72	1.18	1.11	0.83	1.38	0.89	0.99	0.27	1.23	0.23	0.86	0.86
3	1.38	1.33	1.17	1.49	0.77	1.53	0.32	0.10	0.61	0.47	0.67	1.24
4	1.29	2.28	2.93	1.35	0.86	1.68	1.07	0.27	0.21	1.08	0.68	1.34
5	2.32	1.34	1.24	1.07	1.41	1.81	0.84	0.53	0.20	0.45	0.50	0.97
6	1.70	0.48	1.15	0.81	1.76	0.83	0.22	0.23	0.27	0.35	0.15	1.24
7	0.72	1.36	0.92	1.62	1.78	1.44	0.07	0.03	0.49	0.69	1.04	1.13
8	0.86	1.16	0.73	0.72	2.67	0.85	0.24	0.81	0.97	0.30	1.07	2.67
9	1.82	1.69	1.96	0.72	1.36	1.48	0.13	0.65	0.36	0.28	0.26	0.80
10	1.48	0.94	1.20	2.08	1.84	1.42	0.57	0.26	1.24	0.66	0.58	1.77
1. 10 DAYS	14.37	12.83	13.40	11.62	15.00	13.25	4.56	3.43	6.35	4.71	6.60	14.15
11	1.13	0.74	1.21	1.67	2.11	0.86	0.67	0.87	0.41	0.55	0.61	1.71
12	1.81	1.57	1.28	0.98	2.82	1.66	0.51	0.28	0.53	0.93	1.30	1.42
13	0.82	1.51	1.23	0.85	3.44	0.56	0.92	0.10	0.81	1.18	0.64	2.38
14	1.10	1.81	0.73	1.23	2.87	1.16	0.22	0.10	0.64	1.41	1.44	2.01
15	0.65	1.10	0.88	1.02	1.66	1.40	0.62	0.51	0.72	0.73	1.06	2.19
16	1.55	1.93	0.96	1.49	1.51	1.64	0.09	0.28	1.43	0.60	1.94	1.55
17	1.66	1.28	1.91	1.92	1.25	0.14	0.11	0.46	1.26	0.48	1.69	1.69
18	1.34	1.31	1.38	1.84	1.59	1.05	0.16	0.22	1.21	0.57	0.77	2.14
19	1.24	1.45	0.68	1.02	2.44	1.55	0.68	0.22	0.33	0.70	1.33	1.36
20	1.34	0.64	1.35	1.85	1.96	1.72	0.30	0.39	0.23	1.48	1.13	1.58
2. 10 DAYS	12.52	13.71	11.00	13.86	22.32	12.79	5.97	2.91	5.63	10.22	9.35	18.42
21	1.34	0.64	1.35	1.85	1.96	1.72	0.30	0.39	0.23	1.48	1.13	1.58
22	0.95	1.85	0.69	1.21	1.06	0.47	0.06	0.16	0.24	0.47	1.58	1.17
23	0.97	1.28	1.27	1.73	1.80	1.14	0.23	0.33	0.42	1.01	0.47	1.17
24	1.12	1.01	1.35	1.33	2.14	0.75	0.08	0.09	1.48	0.83	1.28	0.81
25	0.81	1.09	1.12	1.84	1.96	0.47	0.15	0.13	0.91	0.94	1.26	0.60
26	1.22	1.46	1.02	1.40	0.52	0.33	0.25	0.15	0.29	1.19	1.18	0.96
27	2.30	0.89	0.99	1.05	1.16	0.25	0.57	0.23	1.19	1.09	1.45	2.28
28	2.31	1.21	1.60	1.63	1.54	0.69	0.22	0.34	0.43	0.32	1.09	1.84
29	1.37	0.19	1.47	2.05	1.49	0.93	0.86	0.03	0.91	1.12	1.35	2.02
30	0.91	*	0.65	1.70	1.09	0.88	0.07	1.01	0.91	0.27	2.53	1.04
31	1.44	*	0.80	*	1.52	*	0.15	0.35	*	0.48	*	1.45
3. 10 DAYS	14.75	9.61	12.32	15.77	16.24	7.57	2.93	3.21	7.02	9.18	13.32	14.93
MONTHLY TOT.	41.65	36.15	36.72	41.25	53.55	33.62	13.46	9.55	18.99	24.11	29.27	47.49

A.I.1/7

CLIMATIC BRIEF

STATION : ANKARA

MEAN METEOROLOGICAL ELEMENTS (OBSERVATION PERIOD : 1926-1970)

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	YEARLY
VAPOUR PRESSURE (mb)	5.0	5.1	5.8	7.2	9.9	11.2	11.4	10.8	9.2	8.1	7.3	6.0	8.1
RELATIVE HUMIDITY (%)	78	75	66	57	57	50	42	40	46	56	70	77	60
CLOUDINESS (0-10)	7.0	6.9	6.1	5.6	5.3	3.8	2.2	1.8	2.6	4.0	5.4	7.1	4.8
EVAPORATION (mm) (Wild)	23.2	31.8	66.8	113.9	129.6	163.1	220.8	227.6	154.7	97.4	50.6	28.3	1307.6
NUMBER OF SNOWY DAYS	4.8	4.6	1.5	0.3	.	.	.	.	.	.	0.7	1.9	13.9
NUMBER OF HAILY DAYS	0.2	0.3	0.7	0.9	1.3	0.7	0.2	0.2	0.1	0.2	0.2	0.1	4.8
WIND SPEED (m/sec)	3.2	3.4	3.6	3.6	3.1	3.2	3.6	3.6	3.1	2.8	2.7	2.9	3.2
SOIL TEMPERATURE (^{o}C,10cm)	1.7	2.3	7.0	13.4	19.0	23.4	26.9	27.4	21.8	14.5	8.1	3.9	14.1
INSOLATION PERIOD (h/min)	3.16	4.03	5.29	7.11	9.08	11.07	12.27	11.53	9.40	7.24	5.17	2.59	7.29

MEAN AND EXTREME TEMPERATURES, AND PRECIPITATION (OBSERVATION PERIOD : 1926-1980)

MEAN TEMPERATURE	-0.2	1.1	5.3	11.1	15.5	19.9	23.1	23.1	18.0	12.6	7.4	2.4	11.6
MAXIMUM TEMPERATURE	16.4	20.4	28.5	31.6	34.4	36.4	38.8	40.0	35.7	33.3	25.3	20.4	40.0
MINIMUM TEMPERATURE	-24.9	-24.2	-16.3	-7.2	-0.2	3.8	4.5	5.5	-1.5	-5.3	-17.5	-24.2	-24.9
MEAN TOTAL PRECIPITATION	41.65	36.15	36.72	41.25	53.55	33.62	13.46	9.55	18.99	24.11	29.27	47.49	385.81

STATION : ÇANKIRI
LATITUDE : 40 36
LONGITUDE : 33 37

MAXIMUM TEMPERATURE

YEARLY MAXIMUM VALUE : 1 8 1954 41.8

OBSERVATION PERIOD : 1929-1980 (37)
STATION ELEVATION : 751 M.

DAYS	JANUARY	YEAR	FEBRUARY	YEAR	MARCH	YEAR	APRIL	YEAR	MAY	YEAR	JUNE	YEAR	JULY	YEAR	AUGUST	YEAR	SEPTEMBER	YEAR	OCTOBER	YEAR	NOVEMBER	YEAR	DECEMBER	YEAR
1	14.3	71	11.9	62	22.0	55	29.8	55	29.0	54	33.2	69	34.6	66	41.8	54	36.3	29	32.0	50	23.0	48	15.2	56
2	11.7	71	13.9	48	24.5	55	30.7	55	28.6	54	34.0	69	34.4	48	36.6	77	35.3	80	32.6	52	22.2	62	18.2	56
3	11.1	68	15.0	53	19.2	66	31.0	52	29.8	71	33.7	69	35.0	54	38.2	77	34.0	50	33.6	52	23.1	48	14.6	61
4	12.2	71	11.9	48	19.5	66	30.5	52	30.1	71	32.0	62	37.0	54	37.2	57	34.6	51	29.4	52	22.4	48	16.6	80
5	13.3	71	11.7	55	18.6	78	30.4	52	28.8	71	32.8	65	36.6	58	36.8	29	35.8	69	29.2	78	21.6	48	14.7	61
6	12.2	71	13.3	55	20.5	62	28.0	32	30.7	54	33.7	65	36.4	62	36.8	62	36.7	52	29.2	74	21.8	55	15.0	61
7	13.3	71	15.6	55	19.2	66	28.4	75	29.5	60	34.2	32	37.8	55	35.5	54	36.7	52	29.4	74	21.3	66	13.0	61
8	12.1	58	14.3	55	17.6	78	28.7	75	30.1	32	34.0	32	39.0	55	38.3	62	36.6	52	29.3	74	21.4	49	12.6	66
9	12.3	48	13.7	58	17.2	32	27.4	75	30.5	73	34.0	32	39.0	55	36.1	30	36.0	52	29.4	74	19.5	52	13.5	67
10	10.3	48	13.2	58	19.5	71	26.9	75	33.2	73	35.0	55	38.7	55	38.4	30	36.0	52	28.0	55	21.2	48	13.7	54
1. 10 DAYS	14.3	71	15.6	55	24.5	55	31.0	52	33.2	73	35.0	55	39.0	55	41.8	54	36.7	52	33.6	52	23.1	48	18.2	56
11	9.2	31	14.7	58	15.4	58	27.4	75	30.6	73	35.0	55	38.0	80	36.6	48	34.3	52	28.3	74	19.4	54	12.9	57
12	10.2	68	16.1	77	20.2	58	27.1	70	30.9	70	36.0	55	36.9	69	37.0	51	34.0	52	28.4	54	19.8	54	13.3	76
13	13.7	63	19.0	79	18.6	75	26.1	51	32.3	58	33.6	78	39.4	80	38.9	51	32.7	65	29.3	54	21.3	62	12.0	57
14	13.6	63	17.5	77	24.9	31	28.7	57	32.4	58	35.7	78	40.0	54	37.4	60	35.3	31	30.3	54	21.8	61	14.4	66
15	11.0	55	16.5	55	21.5	31	27.2	57	29.7	62	33.6	78	38.4	54	37.7	48	35.3	31	28.6	64	21.7	61	13.7	60
16	11.8	48	15.6	77	24.4	31	30.3	57	31.8	62	32.1	69	36.9	72	35.8	54	32.4	57	27.4	64	18.8	54	14.1	57
17	13.0	62	16.2	57	21.2	70	26.9	56	28.6	58	31.0	79	38.2	62	37.0	61	33.6	55	26.6	64	19.0	51	14.7	57
18	13.6	48	18.0	58	20.2	57	27.2	50	32.2	58	34.0	79	40.3	62	38.1	69	33.8	71	27.5	73	18.7	61	14.4	79
19	12.4	55	20.4	55	21.7	51	29.1	56	31.9	58	33.4	71	39.7	62	38.6	69	33.1	71	26.3	54	18.9	49	12.4	79
20	14.1	48	20.0	55	23.4	30	29.9	50	31.3	55	34.2	56	41.0	54	37.7	63	33.6	52	28.0	55	18.9	62	13.0	54
2. 10 DAYS	14.1	48	20.4	55	24.9	31	30.3	57	32.4	58	36.0	55	41.0	54	38.9	51	35.3	31	30.3	54	21.8	61	14.7	57
21	14.3	55	21.7	55	24.9	30	29.2	50	33.2	58	35.0	54	37.2	57	38.7	72	31.3	50	28.3	54	18.3	45	14.7	49
22	12.5	56	17.3	57	25.5	30	29.4	50	32.3	69	37.0	55	37.9	80	38.3	72	32.4	77	26.7	74	18.0	79	12.2	49
23	10.3	55	14.7	66	24.2	57	29.7	50	32.0	62	35.3	55	37.7	57	38.6	77	33.1	79	27.2	73	18.3	62	13.2	63
24	11.5	56	16.6	77	23.1	57	30.4	56	31.0	62	35.3	55	39.0	72	38.3	58	34.0	54	25.7	74	20.5	62	13.0	52
25	11.3	56	19.7	55	20.5	80	28.8	50	30.9	60	36.2	73	38.0	72	38.8	54	34.1	79	25.7	64	18.5	62	12.4	55
26	13.3	56	19.2	77	21.0	76	27.6	66	30.4	60	35.5	55	38.0	72	38.6	54	33.9	79	25.4	64	18.0	62	12.1	52
27	9.5	52	22.0	55	22.4	70	28.9	70	29.6	55	36.3	55	38.6	51	37.6	29	31.0	79	26.0	31	19.8	77	10.5	52
28	10.2	30	20.3	55	24.1	52	28.5	70	31.6	51	36.6	58	38.4	51	38.1	69	31.5	50	26.2	31	16.8	62	10.6	60
29	12.9	30	10.9	64	26.4	52	29.2	70	31.8	51	35.4	58	39.2	57	36.6	69	30.8	50	25.1	31	15.6	61	13.5	68
30	11.2	53	*		26.0	52	30.2	70	33.4	51	35.5	74	41.7	57	37.4	53	32.0	50	26.0	31	16.9	61	12.1	68
31	12.5	60	*		29.0	52	*		32.4	69	*		40.2	57	36.4	75	*		22.6	66	*		10.0	78
3. 10 DAYS	14.3	55	22.0	55	29.0	52	30.4	56	33.4	51	37.0	55	41.7	57	38.8	54	34.1	79	28.3	54	20.5	62	14.7	49
MONTHLY MAX	14.3	55	22.0	55	29.0	52	31.0	52	33.4	51	37.0	55	41.7	57	41.8	54	36.7	52	33.6	52	23.1	48	18.2	56

A.I.1/9

9

STATION : ÇANKIRI
LATITUDE : 40 36
LONGITUDE : 33 37

MINIMUM TEMPERATURE

OBSERVATION PERIOD : 1929-1980 (37)
STATION ELEVATION : 751 M.

YEARLY MINIMUM VALUE : 25 1 1950 -25.0

DAYS	JANUARY	YEAR	FEBRUARY	YEAR	MARCH	YEAR	APRIL	YEAR	MAY	YEAR	JUNE	YEAR	JULY	YEAR	AUGUST	YEAR	SEPTEMBER	YEAR	OCTOBER	YEAR	NOVEMBER	YEAR	DECEMBER	YEAR
1	-19.2	73	-15.6	50	-15.6	49	- 5.6	29	0.6	64	4.6	67	7.6	73	9.5	67	6.3	66	- 2 0	70	- 5.0	51	-11.0	58
2	-21.4	73	-24.0	50	-10.4	76	- 4.3	76	0.6	73	5.3	78	.0	68	8.7	79	7.1	61	- 1.1	70	- 5.9	73	- 8.5	55
3	-24.0	73	-16.9	74	-10.6	80	- 3.8	65	1.8	73	3.6	76	7.5	57	7.5	68	6.4	61	- 1.0	64	- 5.1	31	- 8.4	55
4	-22.4	73	-18.8	60	-10.9	52	- 4.7	31	1.3	49	4.7	50	7.2	76	8.0	68	5.5	56	- 3.0	31	- 8.3	31	- 8.3	53
5	-19.9	73	-20.0	60	-14.4	29	- 3.5	59	1.7	66	1.6	67	7.6	64	8.7	63	6.4	62	- 2.8	54	- 8.0	31	-11.0	31
6	-17.4	73	-19.9	60	-14.3	29	- 3.8	59	1.2	78	3.5	67	8.1	60	9.2	64	6.0	59	- 3.0	54	- 8.8	73	- 9.6	53
7	-13.6	57	-21.8	50	-11.0	49	- 3.4	65	0.9	78	4.2	78	6.7	32	8.7	63	4.9	30	- 1.0	31	- 9.4	73	-11.4	77
8	-12.1	77	-20.6	50	- 9.3	53	- 1.6	63	1.7	77	5.2	62	8.0	79	7.0	65	6.2	80	- 2.1	59	- 7.5	31	-10.0	31
9	-16.2	79	-21.3	29	- 8.7	53	0.8	61	3.0	70	5.4	58	8.8	65	8.6	65	5.3	70	- 0.9	59	- 7.5	31	-12.0	53
10	-14.5	79	-22.6	29	- 7.8	77	- 2.8	55	2.6	76	4.4	62	9.7	80	9.5	74	3.2	53	- 1.3	75	-12.2	56	-12.2	53
1. 10 DAYS	-24.0	73	-24.0	50	-15.5	.9	- 5.6	29	0.6	73	1.6	67	6.7	32	1.0	65	3.2	53	- 3.0	54	-12.2	56	-12.2	53
11	-13.4	66	-13.5	29	-10.5	49	- 4.2	29	2.1	52	3.3	32	7.3	64	9.0	76	3.4	53	0.3	57	-10.6	56	-10.5	75
12	-18.4	50	-11.7	72	- 6.7	60	- 4.3	32	4.9	50	4.6	76	8.2	50	8.8	59	3.1	62	- 1.0	57	-10.8	56	- 9.6	77
13	-21.8	50	-13.3	72	- 9.3	53	- 3.4	52	4.0	50	6.4	76	9.2	76	9.4	53	3.6	59	- 1.6	57	- 7.2	56	- 8.0	70
14	-21.5	50	-17.5	54	-10.6	49	- 2.8	31	1.2	78	5.0	29	8.9	52	8.7	50	1.7	29	- 3.0	48	- 6.0	53	- 9.1	72
15	-23.8	50	-15.7	49	-10.4	49	- 1.8	52	- 0.8	80	6.0	68	8.9	69	9.5	50	2.8	29	- 4.0	65	- 7.7	78	- 9.2	72
16	-17.5	54	-16.5	54	- 9.4	49	- 2.3	79	3.8	70	6.5	62	10.5	31	7.0	75	4.0	53	- 3.2	65	-10.0	48	- 9.6	72
17	-17.4	73	-11.9	67	-11.2	29	- 5.4	29	2.0	54	5.1	62	10.0	69	7.1	75	4.0	56	- 2.3	59	-11.0	48	-10.9	53
18	-13.7	64	-13.0	67	-11.1	29	- 4.4	29	2.6	60	5.5	62	8.3	69	7.8	75	2.5	62	- 4.0	77	- 9.2	48	-10.1	51
19	-15.5	49	-10.6	76	- 8.6	29	- 4.0	29	3.2	56	5.9	58	8.3	69	6.6	78	1.3	79	- 5.0	56	- 8.2	48	- 9.3	48
20	-21.6	76	-11.0	59	- 7.2	72	- 5.3	29	2.8	32	5.5	58	6.4	76	5.6	78	1.5	59	- 6.0	56	- 8.3	73	- 9.3	56
2. 10 DAYS	-23.8	50	-17.5	54	-11.2	29	- 5.4	29	0.8	80	3.3	32	6.4	76	5.6	78	1.3	79	- 6.0	56	-11.0	48	-10.9	53
21	-23.4	76	-11.7	67	- 7.4	72	- 1.6	74	3.3	52	7.8	76	8.1	76	7.9	78	1.0	56	- 5.6	56	- 6.8	50	-13.3	70
22	-15.2	61	- 8.7	76	- 7.0	48	- 3.9	29	5.9	52	6.0	71	8.0	67	5.4	49	1.1	56	- 3.2	77	- 7.8	58	-13.6	70
23	-14.2	64	-14.3	32	- 6.0	59	- 1.0	55	4.2	74	9.0	50	9.5	54	8.0	49	1.0	59	- 6.3	77	- 8.4	58	-13.8	61
24	-20.0	50	-13.0	32	- 7.0	56	- 2.3	32	6.7	80	7.2	78	8.8	50	6.7	60	1.4	59	- 4.2	77	- 9.2	55	-13.5	61
25	-25.0	50	-13.4	76	- 6.5	53	- 1.4	77	6.5	55	8.2	78	9.7	69	8.9	49	1.5	56	- 5.1	50	- 7.9	50	-13.0	72
26	-20.4	54	- 9.5	76	- 8.5	48	- 0.2	50	2.7	55	8.5	30	8.5	63	5.6	59	- 0.5	56	- 5.2	71	- 7.5	59	-17.5	53
27	-20.5	54	-11.0	59	- 8.5	57	- 5.3	29	4.0	69	8.9	30	8.6	56	7.6	49	- 0.2	31	- 5.5	65	-12.0	48	-17.7	53
28	-22.5	54	-15.5	49	- 8.6	57	1.5	79	2.9	70	6.9	52	8.6	56	5.3	49	0.6	56	- 6.0	65	-19.0	48	-13.6	53
29	-23.5	54	- 5.5	. .	- 8.3	56	0.2	73	2.3	67	7.9	52	7.5	50	4.8	70	- 2.0	31	- 5.5	65	-19.4	48	-11.4	75
30	-16.7	80	*		- 8.0	32	2.6	48	3.0	50	8.0	78	7.9	50	4.6	70	- 1.0	31	- 6.2	73	-14.8	53	-13.3	53
31	-17.3	61	*		- 6.2	31	*		3.7	70	*		7.2	79	4.8	70	*		- 4.2	65	*		-17.6	72
3. 10 DAYS	-25.0	50	-15.5	49	- 8.6	57	- 5.3	29	2.3	67	6.0	71	7.2	79	4.9	70	- 2.0	31	-6.3	77	-19.4	48	-17.7	53
MONTHLY MIN	-25 0	50	-24 0	50	-15 5	49	- 5 6	29	- 0 8	80	1 6	67	6 4	76	4	70	- 2 0	31	- 6 3	77	-19 4	48	-17 7	53

STATION : ÇANKIRI
LATITUDE : 40 36
LONGITUDE : 33 37
STATION ELEVATION : 751 M.

MEAN TEMPERATURE

OBSERVATION PERIOD : 1929-1980 (37)

YEARLY MEAN VALUE : 11.1

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	1.2	-0.9	2.0	9.5	13.9	18.3	21.7	22.8	20.0	14.2	8.8	2.8
2	0.3	-0.7	2.5	9.8	13.9	18.4	21.8	22.8	19.8	14.1	8.1	2.7
3	0.5	0.2	2.5	9.6	13.9	18.7	21.6	22.9	19.6	13.3	7.7	2.9
4	0.3	-0.3	2.6	9.3	13.9	19.1	21.8	22.9	19.2	12.9	7.5	3.1
5	0.1	-0.7	2.8	10.1	15.9	18.4	21.3	22.4	19.4	12.6	7.5	3.0
6	-0.4	-1.1	3.2	10.3	14.5	18.6	21.9	22.4	19.2	12.3	7.4	2.7
7	-0.2	-0.7	3.9	10.5	14.4	18.6	22.6	22.5	18.8	12.4	7.6	2.2
8	0.2	-0.2	4.1	10.4	14.6	18.6	22.6	22.7	17.9	12.3	7.4	2.0
9	-0.1	-0.6	4.6	10.5	14.8	18.7	22.5	22.8	18.1	12.2	6.9	1.5
10	-0.2	-0.3	4.8	9.8	15.1	19.4	22.4	22.7	17.6	12.7	6.8	1.6
1. 10 DAYS	0.2	-0.5	3.3	10.0	14.3	18.7	22.0	22.7	19.0	12.9	7.5	2.5
11	-0.7	0.0	4.2	9.8	15.2	19.7	22.4	22.7	17.2	12.4	6.8	1.9
12	-0.7	0.5	4.6	9.9	14.8	20.1	22.6	22.3	17.2	12.3	6.9	2.3
13	-0.8	0.7	4.5	9.9	14.3	19.5	23.1	22.0	17.3	12.0	7.0	2.4
14	-1.2	1.3	5.0	10.5	14.5	19.1	23.3	22.5	17.4	11.2	6.9	2.0
15	-1.1	2.1	5.6	11.3	14.4	18.9	23.2	22.1	17.3	11.4	6.5	1.6
16	-1.2	2.1	6.5	11.2	15.1	19.4	24.1	22.1	17.2	11.7	6.9	1.5
17	-1.0	2.8	6.0	10.5	15.5	19.7	24.0	22.4	16.8	11.5	6.6	1.6
18	-0.8	2.6	5.5	10.7	15.9	20.0	24.2	22.4	17.1	11.3	6.2	1.5
19	-0.8	2.3	6.1	10.6	16.3	20.3	24.0	22.3	16.6	11.6	5.2	1.6
20	-0.6	2.1	6.4	10.5	16.9	20.5	23.2	22.5	16.3	11.3	4.7	1.2
2. 10 DAYS	-0.9	1.7	5.4	10.5	15.3	19.7	23.4	22.3	17.1	11.7	6.4	1.8
21	-0.8	1.7	6.8	10.7	17.8	20.6	23.2	22.3	15.9	10.9	4.6	1.0
22	-0.9	1.4	7.4	11.6	18.4	21.1	22.9	22.3	16.1	10.3	4.4	0.6
23	-1.3	1.5	7.7	11.9	18.5	21.1	23.3	21.7	15.9	10.6	4.2	0.7
24	-1.9	1.9	7.1	12.1	18.0	21.2	23.2	21.8	15.9	10.3	4.3	0.4
25	-1.8	2.3	6.6	12.6	17.1	21.4	24.0	21.4	15.1	9.8	3.4	0.6
26	-0.5	2.3	6.2	12.6	16.6	21.6	23.4	21.3	14.3	9.5	3.5	0.4
27	-0.6	2.5	6.7	12.5	17.0	21.7	23.7	21.1	14.6	9.8	3.5	0.5
28	-1.0	2.3	7.3	12.6	17.6	21.5	23.7	20.8	14.4	9.3	2.5	0.6
29	-1.1	0.3	7.8	12.7	17.9	21.5	23.5	20.0	14.2	8.8	2.1	0.9
30	-1.0	*	8.1	13.7	18.0	21.6	23.8	19.5	14.0	8.9	2.8	1.0
31	-0.4	*	8.3	*	18.1	*	22.8	19.6	*	9.1	*	0.7
3. 10 DAYS	-1.0	1.8	7.3	12.3	17.7	21.3	23.4	21.1	15.0	9.7	3.5	0.7
MONTHLY MEAN	-0.6	1.0	5.3	10.9	15.8	19.9	23.0	22.0	17.0	11.4	5.8	1.6

A.I.1/11

STATION : ÇANKIRI
LATITUDE : 40 36
LONGITUDE : 33 37

MEAN PRECIPITATION

YEARLY TOTAL : 402.44

OBSERVATION PERIOD : 1931-1980 (41)
STATION ELEVATION : 751 M.

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	1.62	1.60	1.87	0.85	1.41	2.31	0.21	0.09	0.44	0.19	0.67	1.06
2	1.23	1.38	1.62	1.14	1.55	2.94	1.61	0.44	1.00	0.21	0.55	1.62
3	1.64	1.86	0.97	1.04	1.24	0.90	0.91	0.01	0.25	0.59	0.73	0.80
4	1.37	4.46	1.80	1.87	1.46	0.91	0.51	0.60	0.77	0.71	0.68	1.56
5	2.09	1.16	1.51	0.72	2.05	1.47	1.39	0.84	0.39	0.13	0.43	0.73
6	1.90	1.32	1.08	0.49	2.25	1.69	0.99	0.11	0.49	0.58	0.17	0.95
7	0.95	1.01	0.84	1.60	2.00	1.93	0.55	0.06	0.43	0.49	0.88	1.62
8	1.35	0.67	0.71	1.21	1.71	1.07	0.45	0.70	0.89	0.50	0.78	2.32
9	2.01	1.43	1.32	0.55	1.48	0.96	0.04	0.86	0.87	0.22	0.53	1.32
10	2.06	1.95	1.15	2.16	2.04	2.40	0.62	0.17	0.34	0.43	0.54	1.28
1. 10 DAYS	16.23	16.86	12.87	11.62	17.17	16.57	7.28	3.88	5.85	4.03	5.97	13.08
11	1.16	1.44	0.58	2.02	1.75	1.46	0.43	0.54	0.72	0.52	0.39	2.01
12	1.29	1.89	1.66	1.11	1.55	1.19	0.88	0.83	0.54	0.79	0.64	0.90
13	1.35	1.47	1.03	0.72	3.74	1.18	0.16	0.50	0.93	0.61	0.57	3.31
14	0.78	0.99	0.44	2.09	2.84	2.20	0.66	0.78	0.42	0.23	0.80	1.42
15	0.87	1.78	1.56	1.03	2.14	1.56	0.07	0.31	0.29	0.19	0.95	2.54
16	1.51	1.83	1.10	1.42	2.11	1.58	0.47	0.20	0.10	0.69	0.45	2.01
17	0.89	1.72	1.43	1.66	2.02	1.96	*	0.29	0.29	0.31	0.28	2.04
18	1.09	1.28	0.76	1.80	1.15	1.79	0.03	0.20	0.24	0.74	1.08	2.29
19	1.86	1.50	0.54	1.19	2.11	1.76	0.17	0.46	0.57	0.85	0.24	2.06
20	1.67	0.37	1.22	1.27	2.06	1.08	0.06	0.48	0.20	0.78	1.25	1.05
2. 10 DAYS	12.48	14.28	10 35	14.32	21.47	15.78	2.93	4.59	4.31	5.71	6.65	19.64
21	1.67	0.37	1.22	1.27	2.06	1.08	0.06	0.48	0.20	0.78	1.25	1.05
22	1.76	0.72	1.21	0.58	0.97	0.57	0.42	0.09	0.27	0.21	1.45	1.35
23	0.97	1.37	0.91	1.54	1.02	1.38	0.33	0.69	1.14	1.14	0.55	1.62
24	1.30	0.93	1.31	2.01	1.31	1.04	0.21	0.10	1.31	0.51	1.18	1.20
25	1.12	1.15	2.51	1.79	0.84	1.40	0.32	1.11	1.08	1.53	1.55	0.99
26	1.74	1.39	1.53	1.51	2.36	0.98	0.46	0.04	0.34	0.89	1.61	1.60
27	1.66	1.15	0.63	1.16	2.76	0.41	0.47	0.13	0.59	0.94	0.79	2.01
28	3.45	0.82	1.51	1.65	1.22	1.07	0.11	0.12	0.13	0.40	0.85	1.52
29	2.39	0.23	1.90	1.03	2.42	1.13	0.47	0.21	0.41	0.95	1.09	2.24
30	1.17	*	1.17	2.86	2.69	0.44	0.36	2.14	1.59	0.32	1.13	0.95
31	1.16	*	1.61	*	1.56	*	0.62	1.52	*	0.51	*	1.05
3. 10 DAYS	18.40	8.14	15.51	14.90	19.21	9.56	3.81	6.62	7.07	8.18	11.46	15.60
MONTHLY TOT.	47.11	39.28	38.73	40.84	57.85	41.92	14.03	15.09	17.24	17.93	24.08	48.33

A.I.1/12

12

CLIMATIC BRIEF

STATION : ÇANKIRI

MEAN METEOROLOGICAL ELEMENTS (OBSERVATION PERIOD : 1929-1970)

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	YEARLY
VAPOUR PRESSURE (mb)	5.0	5.1	6.0	7.9	10.9	12.8	13.9	13.5	11.2	8.6	7.0	6.1	9.0
RELATIVE HUMIDITY (%)	78	75	66	61	61	56	51	52	59	65	72	80	65
CLOUDINESS (0-10)	7.0	6.7	6.1	5.6	5.2	3.9	2.3	2.0	3.0	3.8	5.3	7.2	4.8
EVAPORATION (mm) (Wild)	*	*	*	*	*	*	*	*	*	*	*	*	*
NUMBER OF SNOWY DAYS	5.2	4.6	1.5	0.1	.	.	.	.	.	.	0.5	2.9	14.8
NUMBER OF HAILY DAYS	0.0	0.1	0.1	0.3	0.7	0.7	.	0.2	.	0.1	0.1	.	2.3
WIND SPEED (m/sec)	1.4	1.6	2.0	2.0	1.8	1.8	1.9	1.8	1.5	1.2	1.2	1.2	2.6
SOIL TEMPERATURE (^{o}C,10cm)	1.7	2.2	7.3	13.6	19.6	25.2	29.0	28.4	22.7	15.1	8.2	3.6	14.7
INSOLATION PERIOD (h/min)	2.25	2.53	4.17	6.28	8.13	9.54	11.07	10.06	8.32	6.53	3.54	1.40	6.22

MEAN AND EXTREME TEMPERATURES, AND PRECIPITATION (OBSERVATION PERIOD : 1929-1980)

MEAN TEMPERATURE	-0.6	1.0	5.3	10.9	15.8	19.9	23.0	22.0	17.0	11.4	5.8	1.6	11.1
MAXIMUM TEMPERATURE	14.3	22.0	29.0	31.0	33.4	37.0	41.7	41.8	36.7	33.6	23.1	18.2	41.8
MINIMUM TEMPERATURE	-25.0	-24.0	-15.5	-5.6	-0.8	1.6	6.4	4.6	-2.0	-6.3	-19.4	-17.7	-25.0
MEAN TOTAL PRECIPITATION	47.11	39.28	38.73	40.84	57.85	41.92	14.03	15.09	17.24	17.93	24.08	48.33	402.44

STATION : ÇORUM
LATITUDE : 40 33
LONGITUDE : 34 57

MAXIMUM TEMPERATURE

OBSERVATION PERIOD : 1929-1980 (51)
STATION ELEVATION : 837 M.

YEARLY MAXIMUM VALUE : 18 7 1962 39.7

DAYS	JANUARY	YEAR	FEBRUARY	YEAR	MARCH	YEAR	APRIL	YEAR	MAY	YEAR	JUNE	YEAR	JULY	YEAR	AUGUST	YEAR	SEPTEMBER	YEAR	OCTOBER	YEAR	NOVEMBER	YEAR	DECEMBER	YEAR
1	17.0	71	14.0	62	24.6	58	26.5	55	31.5	35	32.6	41	34.6	38	39.4	54	36.6	38	31.8	43	25.6	32	18.2	61
2	13.8	32	14.0	48	22.4	55	28.7	77	31.2	35	33.4	41	34.2	38	35.6	77	36.9	38	32.6	52	25.0	32	19.0	56
3	13.1	53	14.8	53	18.8	78	30.2	52	29.7	71	33.8	69	35.2	37	36.4	65	35.6	34	33.6	52	23.0	59	17.6	61
4	17.0	71	15.5	36	20.0	66	29.6	52	28.7	47	32.7	69	36.4	54	35.4	30	34.5	34	30.5	40	24.8	59	18.2	80
5	14.7	71	12.8	78	19.0	62	29.6	52	28.4	34	33.4	65	34.6	38	37.8	41	35.3	52	31.1	40	25.0	33	16.7	35
6	14.6	71	13.2	63	20.0	62	27.2	32	29.4	60	33.6	65	35.0	44	35.2	76	35.2	52	32.5	40	23.0	33	17.2	39
7	14.7	71	14.8	55	21.0	62	27.8	41	29.8	60	32.9	32	35.0	55	34.7	37	34.9	31	29.3	74	24.4	50	15.7	39
8	13.5	70	15.4	52	24.9	32	28.0	75	28.3	32	33.5	69	37.2	55	35.2	62	34.8	52	29.5	74	23.6	49	16.7	40
9	14.0	48	13.8	55	19.0	47	28.4	75	29.0	73	33.0	32	37.8	78	36.8	30	35.0	52	29.8	37	22.8	49	15.7	40
10	12.7	71	13.5	73	22.5	37	27.6	30	30.3	73	33.6	55	37.8	55	39.2	30	36.0	52	30.3	32	21.8	49	15.7	67
1. 10 DAYS	17.0	71	15.5	36	24.9	32	30.2	52	31.5	55	33.8	69	37.8	55	39.4	54	36.9	38	33.6	52	25.6	32	19.0	56
11	14.0	31	14.7	66	20.6	37	26.0	75	30.0	73	35.4	55	35.6	54	37.0	30	33.6	37	27.8	32	21.1	44	14.9	67
12	13.6	31	17.0	79	21.4	30	29.4	70	30.6	70	35.4	55	37.6	69	37.2	45	34.4	52	29.2	53	21.0	46	15.8	65
13	14.7	60	18.6	79	22.6	31	27.8	40	31.0	58	32.0	70	38.0	80	38.0	51	33.4	52	29.5	32	20.8	51	14.0	30
14	14.0	70	19.1	77	25.9	31	29.4	57	31.2	61	34.8	78	37.8	54	35.6	60	35.4	31	29.2	64	22.0	61	15.3	66
15	12.6	48	16.4	55	23.8	62	29.2	57	29.0	62	33.2	78	39.4	54	38.7	38	36.8	31	28.8	64	22.9	61	15.0	66
16	14.5	31	17.7	77	24.4	31	29.4	57	31.2	42	34.8	41	34.5	42	36.4	30	35.6	37	27.7	74	21.0	33	15.2	37
17	13.6	31	16.2	57	21.5	31	26.5	30	30.1	39	36.0	41	37.8	62	36.4	35	32.7	30	29.0	74	19.5	63	16.5	37
18	14.2	48	18.8	73	18.8	64	26.4	50	29.8	58	33.4	41	39.7	62	37.4	54	34.1	31	28.5	32	20.6	49	14.0	30
19	14.2	48	19.6	55	22.7	32	29.0	59	29.8	58	34.2	41	37.5	68	37.4	69	34.4	31	26.6	31	20.2	49	14.6	58
20	15.6	39	18.1	55	25.8	30	28.4	50	31.3	41	33.2	56	37.0	62	36.1	63	34.4	37	27.5	39	19.8	62	13.4	37
2. 10 DAYS	15.6	39	19.6	55	25.9	31	29.4	57	31.3	41	36.0	41	39.7	62	38.7	38	36.8	31	29.5	32	22.9	61	16.5	37
21	14.8	48	17.6	55	27.8	30	26.6	50	31.2	69	33.8	79	34.9	57	36.8	57	32.8	37	27.8	39	19.4	66	14.2	50
22	12.0	71	17.7	31	27.4	32	28.6	50	32.0	62	34.8	42	37.0	80	36.7	79	32.2	37	27.5	73	18.8	66	15.4	63
23	14.2	48	17.5	41	25.2	62	29.0	50	31.6	38	37.1	42	38.0	57	37.7	77	33.9	37	26.7	73	18.5	30	16.2	63
24	12.2	36	18.0	77	23.9	37	28.5	50	33.0	45	32.6	55	36.6	57	38.0	77	34.5	37	25.4	52	19.3	62	14.2	52
25	13.5	71	17.2	47	25.6	37	29.4	50	33.8	45	35.7	73	36.5	39	36.6	54	34.0	37	26.0	30	19.8	62	14.1	52
26	15.4	56	19.6	77	25.6	37	29.4	50	33.8	35	33.8	55	38.2	30	36.2	54	33.6	37	27.6	60	17.8	62	11.6	68
27	13.3	56	19.8	55	26.6	47	28.2	70	35.1	45	34.3	60	39.6	30	36.6	58	31.4	45	28.5	31	20.0	77	11.5	30
28	12.3	39	20.3	58	25.5	40	28.5	70	31.7	45	35.8	80	36.0	51	37.8	69	33.2	45	28.5	31	17.7	46	13.4	68
29	15.4	30	16.5	36	27.5	40	29.1	37	29.8	50	36.0	58	37.2	57	37.5	35	30.6	43	29.9	31	15.6	49	15.2	68
30	13.8	30	*		25.5	40	29.0	70	31.0	51	35.1	74	39.4	57	35.6	34	31.6	40	28.6	31	16.5	78	12.7	78
31	14.7	39	*		28.6	52	*		33.8	35	*		39.0	57	35.6	38	*		26.2	32	*		12.5	68
3. 10 DAYS	15.4	30	20.3	58	28.6	52	29.4	50	35.1	45	37.1	42	39.6	30	38.0	77	34.5	37	29.9	31	20.0	77	16.2	63
MONTHLY MAX	17.0	71	20.3	58	28.6	52	30.2	52	35.1	45	37.1	42	39.7	62	39.4	54	36.9	38	33.6	52	25.6	32	19.0	56

A.I.1/14

STATION : ÇORUM
LATITUDE : 40 33
LONGITUDE : 34 57

MINIMUM TEMPERATURE

OBSERVATION PERIOD : 1929-1980 (51)
STATION ELEVATION : 837 M.

YEARLY MINIMUM VALUE : 4 1 1942 -25.6

DAYS	JANUARY	YEAR	FEBRUARY	YEAR	MARCH	YEAR	APRIL	YEAR	MAY	YEAR	JUNE	YEAR	JULY	YEAR	AUGUST	YEAR	SEPTEMBER	YEAR	OCTOBER	YEAR	NOVEMBER	YEAR	DECEMBER	YEAR
1	-19.5	42	-17.5	72	-14.6	49	- 6.5	33	- 1.6	48	1.8	45	5.6	49	8.4	79	6.0	66	- 1.6	41	- 6.9	51	-10.7	58
2	-17.6	37	-22.5	50	-12.8	54	- 6.3	33	0.1	73	0.2	78	6.9	68	8.8	48	6.6	49	- 0.5	41	- 8.0	73	-14.3	41
3	-20.7	50	-23.4	47	-13.7	52	- 5.6	33	- 1.0	40	1.5	34	6.6	57	6.1	58	6.2	49	0.8	64	- 8.4	31	-17.5	41
4	-25.6	42	-23.3	60	-13.2	53	- 7.8	31	0.4	49	2.8	50	4.0	57	8.5	49	5.6	56	- 2.0	31	-10.4	31	-16.9	41
5	-21.7	42	-25.5	60	-12.3	43	- 5.4	57	- 1.6	66	0.7	67	5.6	57	7.4	78	5.3	61	- 1.5	54	- 4.6	53	-18.7	41
6	-24.6	42	-23.7	60	- 9.8	43	- 4.4	33	- 1.0	78	1.0	50	6.6	57	7.8	35	5.8	64	- 2.0	46	- 8.3	73	-14.6	33
7	-16.3	42	-21.5	50	-16.8	53	- 3.0	49	- 3.0	35	1.0	68	7.4	30	7.9	69	4.0	59	- 1.4	31	- 7.4	31	-15.4	41
8	-19.4	35	-19.3	50	-18.8	53	- 6.4	33	- 2.4	35	3.4	37	5.8	43	6.7	47	4.4	41	- 2.2	41	- 6.0	31	-19.7	41
9	-20.4	35	-18.0	76	-19.0	53	- 6.0	42	- 1.0	35	4.2	52	6.1	64	6.8	69	3.7	67	- 4.3	41	- 7.7	56	-17.6	41
10	-20.0	35	-23.2	65	-11.0	53	- 4.6	55	0.6	58	3.8	62	5.0	58	7.2	69	2.4	53	- 2.1	41	- 7.9	56	-12.4	53
1. 10 DAYS	-25.6	42	-25.5	60	-19.0	53	- 7.8	31	- 3.0	35	0.2	78	4.0	57	6.1	58	2.4	53	- 4.3	41	-10.4	31	-19.7	41
11	-19.5	35	-21.6	60	- 9.3	49	- 3.5	64	- 1.6	52	4.6	58	4.0	58	6.2	73	4.0	67	- 0.5	38	- 9.1	56	-11.3	75
12	-22.2	40	-15.8	56	- 8.7	52	- 6.6	32	- 2.6	45	3.2	76	6.4	58	7.8	76	3.8	62	- 3.6	57	- 9.8	56	-10.7	77
13	-23.5	40	-16.0	60	-12.4	53	- 5.4	39	0.6	50	5.0	66	6.3	58	7.6	50	2.9	61	- 2.0	57	- 6.3	56	-14.0	56
14	-21.7	50	-16.1	36	-10.3	49	- 5.2	31	1.4	78	3.6	52	7.2	32	5.6	50	4.0	34	- 3.4	75	- 8.1	48	-10.6	56
15	-20.9	50	-12.2	54	-11.7	53	- 3.2	80	0.2	31	3.6	52	6.2	32	7.1	50	4.6	43	- 3.0	59	-11.8	48	-13.3	51
16	-18.0	72	-17.7	49	- 9.5	49	- 4.2	33	2.7	40	4.7	35	9.1	71	6.0	75	3.3	64	- 2.6	59	- 9.1	48	-16.5	51
17	-17.7	80	-12.4	67	- 8.4	41	- 3.3	80	0.3	54	3.8	62	7.6	43	7.6	75	1.8	36	- 1.8	56	-11.1	48	-14.8	51
18	-17.6	64	-12.0	34	- 9.1	63	- 4.2	45	1.8	60	5.8	35	7.6	45	4.4	33	- 0.4	34	- 5.1	56	- 8.3	48	-12.3	53
19	-18.8	72	-14.3	34	- 8.3	63	- 3.5	42	1.0	56	5.1	38	6.5	69	6.8	77	0.0	44	- 5.9	56	-10.2	45	-15.1	51
20	-21.3	72	-16.8	59	- 9.8	31	- 2.8	51	0.4	32	1.6	58	6.5	76	6.2	78	0.2	60	- 5.1	56	- 7.2	30	-14.6	45
2. 10 DAYS	-23.5	40	-21.6	60	-12.4	53	- 6.6	32	- 2.6	45	1.6	58	4.0	58	4.4	33	- 0.4	34	- 5.9	56	-11.8	48	-16.5	51
21	-23.3	76	-11.6	67	- 9.0	40	- 1.6	52	- 0.2	32	4.2	78	7.0	76	6.4	34	- 0.6	56	- 4.3	58	- 8.1	58	-12.0	46
22	-14.7	67	-10.4	30	-10.9	42	- 3.5	55	- 1.6	78	5.3	78	7.8	65	6.1	34	0.0	56	- 2.2	77	- 8.7	57	-13.0	46
23	-16.3	54	-17.2	34	-12.5	42	- 2.4	49	- 1.4	43	6.3	80	6.3	54	6.7	34	0.0	56	- 6.3	77	- 9.3	57	-13.5	67
24	-19.7	50	-18.6	32	-11.7	42	- 3.4	48	- 2.3	33	6.0	38	7.8	53	5.0	60	1.8	59	- 4.3	50	- 7.6	73	-16.0	33
25	-23.0	47	-18.5	45	- 8.7	53	- 0.2	77	- 0.0	55	5.0	52	8.1	50	6.0	60	3.0	59	- 4.2	47	- 9.2	45	-24.4	33
26	-20.1	42	-13.8	38	- 9.3	56	- 0.8	49	- 0.2	55	4.8	30	9.2	68	5.8	59	2.0	48	- 4.1	71	- 9.3	53	-17.8	53
27	-20.2	54	-13.0	59	-12.1	57	- 3.7	47	- 2.3	69	5.6	71	7.6	56	5.6	41	- 1.0	56	- 5.8	65	-10.9	48	-18.3	53
28	-18.2	54	-15.2	49	-11.4	57	- 1.3	47	- 1.2	52	5.1	35	8.0	79	3.0	44	1.0	56	- 5.4	46	-13.8	48	-14.0	53
29	-21.2	54	-10.3	56	-11.2	56	- 3.6	48	- 2.1	67	6.5	34	8.4	32	5.5	44	- 3.0	31	- 4.6	65	-21.5	48	-15.5	41
30	-18.2	69	*		-12.0	32	- 1.2	56	- 1.6	56	6.5	56	8.3	48	4.6	50	- 0.0	31	- 5.8	73	-15.7	48	-15.8	41
31	-13.4	49	*		-10.2	56	*		- 2.8	70	*		8.0	79	5.5	70	*		- 6.3	58	*		-21.6	41
3. 10 DAYS	-23.3	76	-18.6	32	-12.5	42	- 3.7	47	- 0.2	32	4.2	78	6.3	54	3.0	44	- 3.0	31	- 6.3	58	-21.5	48	-24.4	33
MONTHLY MIN	-25.6	42	-25.5	60	-19.0	53	- 6.8	31	- 3.0	35	0.2	78	4.0	58	3.0	44	- 3.0	31	- 6.3	58	-21.5	48	-24.4	33

A.I.1/15

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STATION : ÇORUM
LATITUDE : 40 33
LONGITUDE : 34 57
STATION ELEVATION : 837

MEAN TEMPERATURE

OBSERVATION PERIOD : 1929-1980 (51)

YEARLY MEAN VALUE : 10.7

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	0.8	-0.4	2.4	8.8	13.8	17.0	20.2	21.5	20.0	14.5	9.7	3.3
2	0.1	-0.4	2.8	9.2	13.8	17.8	20.0	21.4	19.6	14.7	9.1	3.2
3	-0.0	-0.2	2.4	9.0	13.9	17.3	20.1	21.3	19.0	14.1	8.9	3.1
4	-0.0	0.2	2.5	8.9	13.6	17.4	19.8	21.3	19.1	13.6	8.6	3.3
5	-0.2	-0.2	2.5	9.5	13.4	17.1	20.1	21.5	19.0	13.5	8.5	3.2
6	-0.6	-0.4	3.1	9.7	13.7	17.1	20.2	21.1	18.7	13.6	8.7	3.1
7	-0.5	0.1	3.6	9.8	13.6	17.3	20.1	21.0	18.5	13.4	8.4	3.2
8	0.1	0.3	3.7	10.2	14.1	17.4	20.2	21.0	17.9	13.0	8.0	3.0
9	-0.4	-0.3	4.0	10.0	14.5	17.6	20.5	21.4	17.8	13.1	7.9	2.7
10	-0.5	-0.1	4.0	9.4	14.2	18.0	20.3	21.8	17.4	13.3	8.1	2.9
1. 10 DAYS	-0.1	-0.1	3.1	9.4	13.9	17.3	20.1	21.3	18.7	13.7	8.6	3.1
11	-0.7	0.5	4.0	8.9	14.5	18.3	20.4	21.4	17.0	13.0	8.2	2.4
12	-0.6	1.1	3.8	9.0	14.6	18.8	21.0	21.3	17.1	12.9	8.1	2.8
13	-0.8	1.3	3.5	9.0	14.2	18.3	21.1	21.4	17.3	12.3	8.0	2.5
14	-0.9	1.5	4.1	9.4	14.0	18.3	21.1	21.2	17.1	12.0	7.4	2.3
15	-1.0	2.4	5.0	10.4	14.1	18.1	21.2	20.9	17.0	12.2	7.2	2.0
16	-0.9	2.1	5.5	10.4	14.5	18.1	21.7	21.0	16.5	12.3	7.3	1.9
17	-0.6	2.9	5.2	9.6	14.8	18.6	22.1	21.4	16.1	12.1	7.2	2.0
18	-0.7	2.2	4.4	10.0	15.5	18.8	22.6	21.4	16.1	11.9	6.5	1.4
19	-0.7	2.0	5.0	10.3	15.6	18.9	22.3	21.4	16.2	11.9	5.8	1.2
20	-0.7	1.9	5.2	10.3	16.0	18.8	21.9	21.3	16.2	11.3	5.5	1.1
2. 10 DAYS	-0.8	1.8	4.6	9.7	14.8	18.5	21.5	21.3	16.7	12.2	7.1	2.0
21	-0.7	1.8	5.4	10.4	16.7	18.8	21.7	21.3	16.3	10.7	5.0	1.0
22	-1.4	1.4	6.1	11.2	16.9	19.3	21.5	21.4	16.1	10.8	4.6	0.5
23	-1.7	1.1	6.6	12.1	17.0	19.2	21.9	21.0	16.0	10.7	4.5	-0.0
24	-2.6	1.9	6.6	12.4	16.6	19.4	22.1	21.0	16.4	10.6	4.6	-0.0
25	-2.1	2.1	5.8	12.6	16.6	19.8	21.9	20.7	16.0	10.5	4.1	0.2
26	-0.8	2.1	6.2	12.5	15.6	19.8	21.6	20.3	15.4	10.0	4.3	0.4
27	-0.3	2.0	6.6	12.5	15.9	19.7	21.4	19.9	15.3	10.5	4.0	0.7
28	-0.2	2.1	7.3	12.2	16.5	19.8	21.4	19.7	15.0	10.3	3.4	0.6
29	-0.8	0.3	7.5	12.5	16.4	20.1	21.5	19.6	14.7	10.2	3.4	0.8
30	-0.5	*	7.7	13.5	16.7	20.4	21.8	19.8	14.1	10.1	3.2	0.3
31	-0.0	*	8.0	*	17.0	*	21.6	19.8	*	10.0	*	0.4
3. 10 DAYS	-1.0	1.6	6.7	12.2	16.5	19.6	21.7	20.4	15.5	10.4	4.1	0.5
MONTHLY MEAN	-0.6	1.1	4.8	10.5	15.1	18.5	21.1	21.0	17.0	12.1	6.6	1.8

A.I.1/16

16

STATION : ÇORUM
LATITUDE : 40 33
LONGITUDE : 34 57

MEAN PRECIPITATION

YEARLY TOTAL : 420.02

OBSERVATION PERIOD : 1931-1980 (50)
STATION ELEVATION : 837 M.

DAYS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	1.35	1.00	1.34	1.15	1.74	1.97	1.00	0.34	0.33	0.37	0.75	1.30
2	1.71	1.02	1.96	1.17	1.73	2.00	1.20	0.22	0.26	0.17	0.54	1.28
3	1.46	0.90	1.59	1.55	2.00	1.75	0.71	0.19	0.25	0.77	0.74	0.94
4	1.19	1.84	2.31	1.61	1.60	2.09	0.62	0.19	0.54	0.49	1.10	1.35
5	3.01	1.43	1.20	0.70	1.22	1.70	0.49	0.36	0.18	0.55	0.65	0.98
6	1.48	0.66	1.19	0.76	2.64	1.50	1.08	0.12	1.26	0.90	0.35	1.88
7	0.74	1.09	0.61	1.62	1.49	1.33	2.10	0.00	0.46	0.90	1.43	1.04
8	0.63	0.95	0.62	1.05	3.75	2.81	0.71	0.66	0.81	0.62	1.16	2.48
9	1.64	1.37	1.57	1.04	1.99	1.34	0.36	0.30	1.50	0.17	0.49	0.85
10	2.12	0.74	1.43	2.29	1.41	1.72	0.97	0.50	0.22	0.50	0.58	1.51
1. 10 DAYS	15.34	10.99	13.82	12.93	19.57	18.20	9.24	2.89	5.82	5.44	7.79	13.63
11	0.58	0.33	0.49	1.97	1.83	2.11	1.36	0.43	0.98	0.69	0.75	1.63
12	1.30	1.40	1.45	0.70	2.07	2.04	0.36	1.68	0.46	1.14	0.83	1.27
13	1.12	1.38	2.19	2.05	3.80	1.19	0.50	0.42	0.47	1.59	0.86	1.81
14	0.94	1.52	0.93	1.52	2.99	1.45	0.33	0.28	0.82	1.38	0.67	2.95
15	0.51	1.09	0.56	1.16	1.53	1.33	0.08	0.22	0.85	0.60	0.68	1.30
16	0.66	0.94	0.94	1.98	1.39	1.56	0.32	0.18	0.26	1.79	0.29	1.63
17	0.93	0.86	1.30	1.58	2.01	2.99	0.06	0.64	0.92	0.67	1.09	1.67
18	1.49	2.17	0.92	1.37	1.24	1.45	0.00	0.01	0.89	0.52	0.55	1.09
19	1.00	1.45	0.89	1.19	2.03	0.98	0.12	0.07	0.24	1.27	1.74	1.45
20	1.88	0.47	1.02	1.73	1.92	1.90	0.07	1.04	0.23	1.03	1.38	1.65
2. 10 DAYS	10.42	11.62	10.68	15.24	20.81	16.98	3.18	4.97	6.12	10.68	8.86	16.46
21	1.88	0.47	1.02	1.73	1.92	1.90	0.07	1.04	0.23	1.03	1.38	1.65
22	1.08	1.30	0.55	1.57	1.35	2.33	0.77	0.19	0.61	0.60	1.48	1.29
23	0.86	1.55	1.30	1.21	1.23	1.27	0.60	0.64	0.53	1.11	0.44	0.90
24	1.84	1.12	1.27	1.64	2.04	1.77	0.08	0.04	1.29	0.76	0.89	0.53
25	1.06	0.80	1.14	2.09	1.48	0.87	0.32	0.33	1.21	0.72	1.27	0.84
26	0.80	1.47	1.32	2.16	1.89	1.13	0.47	0.11	0.41	1.16	1.52	0.86
27	1.70	0.67	1.54	1.82	3.90	0.54	1.13	0.97	0.35	1.61	1.22	1.28
28	5.89	0.95	1.71	1.45	2.20	0.95	0.99	0.27	0.25	0.52	1.62	2.14
29	1.83	0.24	1.47	1.08	1.20	1.27	0.39	0.59	1.04	0.87	1.96	1.61
30	0.68	*	1.19	2.24	2.08	0.28	0.54	0.67	2.44	0.27	2.15	1.08
31	1.01	*	1.08	*	1.28	*	0.26	1.66	*	0.25	*	1.50
3. 10 DAYS	18.63	8.57	13.59	17.98	20.57	12.31	5.63	6.20	8.36	8.89	13.93	13.68
MONTHLY TOT.	40 39	31.18	38.10	46.15	60.95	47.50	18.06	14.06	20.30	25.01	30.58	43.76

A.I.1/17

CLIMATIC BRIEF

STATION : ÇORUM

MEAN METEOROLOGICAL ELEMENTS (OBSERVATION PERIOD : 1929-1970)

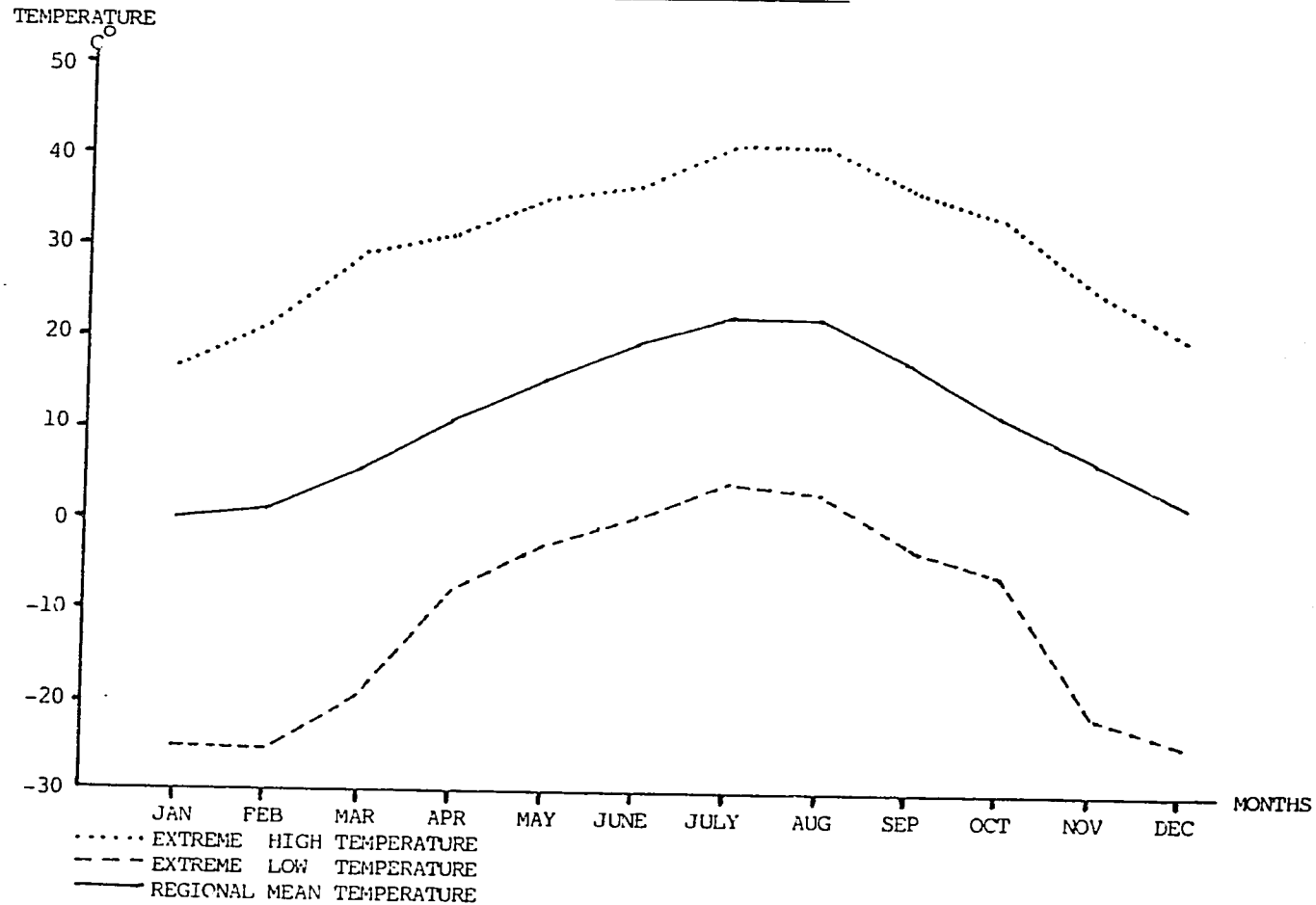
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	YEARLY
VAPOUR PRESSURE (mb)	4.9	5.1	5.8	7.6	10.6	12.1	12.8	12.6	10.5	8.4	7.2	5.9	8.6
RELATIVE HUMIDITY (%)	78	75	69	62	63	58	53	53	57	62	72	79	65
CLOUDINESS (0-10)	7.4	7.1	6.6	6.0	5.5	4.2	2.8	2.6	3.4	4.5	5.9	7.2	5.3
EVAPORATION (mm) (Wild)	17.4	24.2	48.7	83.4	97.6	127.2	194.1	194.9	131.3	79.4	37.6	20.0	1055.8
NUMBER OF SNOWY DAYS	5.6	5.4	3.1	0.5	.	.	.	.	.	.	1.0	2.6	18.1
NUMBER OF HAILY DAYS	.	0.0	0.1	0.2	0.8	0.8	0.1	0.0	0.0	0.0	.	.	2.3
WIND SPEED (m/sec)	1.4	1.9	2.2	2.6	2.3	2.6	3.6	3.6	2.9	1.9	1.4	1.3	2.3
SOIL TEMPERATURE (^{o}C,10cm)	1.8	2.1	6.4	12.6	18.3	21.7	24.5	24.2	19.5	13.6	7.9	3.8	13.0
INSOLATION PERIOD (h/min)	*	*	*	*	*	*	*	*	*	*	*	*	*

MEAN AND EXTREME TEMPERATURES, AND PRECIPITATION (OBSERVATION PERIOD : 1929-1980)

MEAN TEMPERATURE	-0.6	1.1	4.8	10.5	15.1	18.5	21.1	21.0	17.0	12.1	6.6	1.8	10.7
MAXIMUM TEMPERATURE	17.0	20.3	28.6	30.2	35.1	37.1	39.7	39.4	36.9	33.6	25.6	19.0	39.7
MINIMUM TEMPERATURE	-25.6	-25.5	-19.0	-7.8	-3.0	0.2	4.0	3.0	-3.0	-6.3	-21.5	-24.4	-25.6
MEAN TOTAL PRECIPITATION	44.39	31.18	38.10	46.15	60.95	47.50	18.06	14.06	20.30	15.01	30.38	43.76	420.02

CENTRAL ANATOLIA (ANKARA, ÇANKIRI, ÇORUM)

REGIONAL TEMPERATURE GRAPH



FRUITS-NUMBER OF TREES AND PRODUCTION

FRUITS	ANKARA		ÇORUM		ÇANKIRI		Total of project region		Total of Turkey	
	Totalnumber	Production	N	P	N	P	N	P	N	P
Pome fruits	3.337.610	52.260	1.044.900	21.040	511.851	14.212	4.934.361	87.512	57.108.000	2.004.000
Pear	1.726.890	20.140	284.900	6.600	122.715	3.394	2.134.505	30.134	15.100.000	330.000
Quince	254.670	3.351	150.000	2.440	44.950	1.234	449.620	7.025	3.130.000	62.000
Apple	1.373.050	28.535	610.000	12.000	344.186	9.584	2.327.236	50.119	38.200.000	1.600.000
Medlar	23.000	270	--	--	--	--	23.000	270	460.000	7.500
Stone fruits	1.902.420	24.991	764.000	8.675	446.575	8.840	3.112.995	42.506	121.220.000	2.151.000
Plum	219.980	3.511	204.500	2.660	241.860	5.397	666.340	11.568	7.625.000	168.000
Jujube	146.295	2.043	26.000	170	13.025	77	185.320	2.290	850.000	10.500
Apricot	432.680	5.422	123.000	1.550	7.300	150	562.980	7.122	6.150.000	140.000
Cherry	225.070	5.266	100.000	1.100	88.480	2.037	413.550	8.403	5.160.000	105.000
Cornel	1.800	10	24.000	150	31.350	225	57.150	385	1.750.000	15.500
Peach	89.135	914	87.000	1.220	10.750	224	186.885	2.358	9.535.000	265.000
Sour cherry	432.870	4.610	107.000	875	21.360	154	561.230	5.639	4.200.000	62.000
Wild apricot	354.590	3.215	92.500	950	32.450	576	479.540	4.741	4.850.000	65.000
Nuts	269.467	3.645	310.550	3.396	49.720	1.435	629.737	8.476	309.355.000	446.000
Pistachio	118.300	57	182.000	16	1.500	--	301.800	73	30.330.000	13.000
Walnut	69.777	2.415	112.550	3.230	36.695	1.265	219.022	6.910	4.080.000	120.000
Almond	81.390	1.173	16.000	150	11.525	170	108.915	1.493	4.600.000	38.000
Grape-like fruits	546.805	86.273	97.370	66.787	39.775	4.359	683.950	157.419	13.735.000	4.123.000
Mulberry	531.605	3.547	93.000	1.750	39.775	1.087	664.380	6.384	4.500.000	90.000
Fig	2.700	44	2.850	26	--	--	5.550	70	6.900.000	280.000
Pomegranate	12.500	150	1.520	11	--	--	14.020	161	1.790.000	33.500
Grape (1)	28.904	82.532	11.000	65.000	699	3.272	40.603	150.804	655.000	3.650.000

(1) Hectar(which is not included in the total)

Source: State Institute of Statistics (SIS)

PRODUCTION OF VEGETABLES

VEGETABLES	ANKARA Production (ton)	ÇORUH P	ÇANKIRI P	TOTAL OF PROJECT REGION P	TOTAL OF TURKEY P
LEAFY OR STEM Vegetables	21.108	8.952	4.679	34.739	1.135.385
CABBAGE	4.370	1.900	2.913	9.183	470.000
BLACK CABBAGE	--	--	625	625	140.000
ARTICHOKE	3	--	--	3	7.500
LEAF LETTUCE	3.343	36	104	3.483	20.000
HEAD LETTUCE	873	16	199	1.088	55.000
SPINACH	9.847	2.500	203	12.550	125.000
LEEK	2.061	4.500	635	7.196	300.000
PURSLANE	71	--	--	71	385
LEGUMINOUS VEGTABLES	19.306	1.560	11.634	32.500	475.000
GREEN BEAN	19.250	1.250	10.920	31.420	320.000
GREEN PEA	56	--	--	56	40.000
GREEN BROAD BEAN	--	--	70	70	50.000
CALAVANCE	--	310	644	954	65.000
FRUIT BEARING VEGETABLES	382.496	141.143	144.819	668.458	10.443.000
MELON	113.606	21.531	66.836	201.973	1.400.000
WATER MELON	109.450	31.376	45.300	186.126	3.100.000
PUMKIN	7.192	5.599	1.399	14.180	60.000
SQUASH	10.396	11.887	1.622	23.905	310.000
CUCUMBER	16.350	11.000	2.374	29.724	550.000
EGG-PLANT	14.746	5.000	2.725	22.471	700.000
OKRA	275	2.000	9	2.284	23.000
TOMATO	104.636	46.750	23.985	175.371	3.700.000
STUFF PEPPER	2.931	5.050	437	8.418	360.000
GREEN PEPPER	2.914	950	142	4.006	240.000
ROOTBULB AND TUBEROUS vgbls.	34.720	2.184	1.183	38.095	297.500
GREEN GARLIC	558	--	207	765	22.000
GREEN ONION	12.399	110	389	12.898	140.000
CARROT	11.904	2.000	400	14.304	90.000
HORSE-RADISH	2.154	70	160	2.384	18.600
RED-RADISH	6.189	--	27	6.216	25.000
JEROSALEM ARTICHOKE	1.524	4	--	1.528	2.000

Source : SIS

AREA SOWN AND PRODUCTION OF FIELD CROPS

CROPS	ANKARA		ÇORUM		ÇANKIRI		Total project of Region		Total of Turkey	
	Sown area (Hectares)	Production (Tons)	S	P	S	P	S	P	S	P
Cereals	1.042.704	2.141.422	323.722	693.507	125.700	254.767	1.492.126	3.089.696	13.421.685	26.418.000
Wheat	809.100	1.617.432	230.375	480.140	86.300	168.215	1.125.775	2.265.787	9.000.000	17.500.000
Barley	222.310	500.148	80.100	178.670	37.600	84.000	340.010	762.818	3.137.000	6.400.000
Rye	135	155	750	1.125	--	--	685	1.280	312.500	430.000
Oats	9.430	19.800	800	1.280	250	225	10.460	21.305	175.000	330.000
Maize	385	857	4.000	11.000	250	370	4.635	12.227	580.000	1.360.000
Millet	--	--	5	6	--	--	5	6	11.050	15.000
Rice	1.344	3.033	6.992	20.586	500	1.275	8.836	24.894	77.350	210.000
Mixed grain	--	--	100	100	--	--	100	100	97.000	130.000
Spelt	--	--	600	600	800	682	1.400	1.282	31.000	42.000
Pulses	47.489	47.655	46.940	46.222	39.342	36.460	133.771	130.337	1.203.860	1.230.296
Broad bean	--	--	--	--	14	14	14	14	35.500	65.000
Chick peas	10.410	10.526	7.000	6.748	1.649	993	18.459	18.267	245.000	280.000
Dry bean	2.541	3.695	2.000	2.115	1.720	2.024	6.261	7.834	106.000	165.000
Lentil	19.416	19.318	28.992	30.731	13.780	11.189	62.188	61.238	622.752	550.000
Kidney bean	2	2	--	--	--	--	2	2	1.700	1.950
Cow vetch	15.07[illegible]	14.067	8.490	6.290	22.779	22.240	46.339	42.597	160.000	130.000
Wild vetch	40	40	450	330	--	--	490	370	23.350	25.000
Peas	--	--	--	--	--	--	--	--	2.700	5.000
Ind. Crops	30.543	696.365	8.058	235.763	2.932	95.223	41.533	1.027.851	1.233.816	13.478.720
Tobacco	--	--	--	--	--	--	--	--	206.113	207.735
Sugar beet	18.739	691.298	7.552	235.503	2.932	95.223	29.223	1.022.024	372.311	12.732.461
Cotton(Lint)	200	80	6	3	--	--	206	83	595.000	489.000
Aniseed	--	--	--	--	--	--	--	--	9.845	7.100
hemp(fiber)	--	--	300	257	--	--	300	257	7.400	9.800
Flax(fiber)	--	--	200	--	--	--	200	--	1.898	385
Others(1)	11.604	5.487	--	--	--	--	11.604	5.487	32.717	26.395
Oil seeds	16.655	16.965	6.100	7.175	100	100	22.855	24.240	624.574	1.509.030
Cotton seed (2)	--	128	--	5	--	--	128	133	--	782.400
Sesame	40	12	--	--	--	--	40	12	44.250	27.000
Sunflower	16.612	16.822	6.100	6.920	100	100	22.812	23.842	530.000	600.000
Ground nut	--	--	--	--	--	--	--	--	24.000	50.000
Soy bean	3	3	--	--	--	--	3	3	24.389	36.000
Safflower	--	--	--	--	--	--	--	--	235	250
Rape seed	--	--	--	--	--	--	--	--	1.700	2.000
Flax seed(3)	--	--	--	140	--	--	--	140	--	1.290
Hemp seed(4)	--	--	--	110	--	--	--	110	--	3.500
Tuber crops	5.968	85.127	6.755	127.300	3.333	60.325	16.056	272.752	266.035	4.179.000
Dry onion	1.944	19.575	2.300	43.645	300	2.400	4.544	65.620	71.000	1.025.000
Dry garlic	309	1.442	950	8.580	115	575	1.374	10.597	13.335	84.000
Potato	3.657	61.770	3.500	75.000	2.917	57.340	10.074	194.110	180.000	3.000.000
Fodder beet	58	2.340	5	75	1	10	64	2.425	1.700	70.000

(1) Sugar cane, saffron, coriander, dry pepper, sorghum, cumain, mustard, tonka, bean, hop.

(2) Area sown is the same for cotton.

(3) Area sown is the same for flax(fibre)

(4) Area sown is the same for hemp(fibre)

Source : SIS

FODDER CROPS

CROPS	ANKARA				ÇORUM				ÇANKIRI				TOTAL OF PROJECT REGION				TOTAL OF TURKEY			
	Sown area	Production(ton) Grain	Green	Hay	S	Grain	Green	Hay	S	Grain	Green	Hay	S	Grain	Green	Hay	S	Grain	Green	Hay
MAIZE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	124.055	517.535
COW VETCH	--	--	24.460	3.240	--	--	27.865	--	--	--	--	--	--	--	52.345	3.240	--	--	262.384	113.084
WILD VETCH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.475	4.335
ALFALFA	2.431	3	102.670	30.155	1.100	--	41.470	--	1.780	--	64.080	16.020	5.311	3	208.220	46.175	140.911	2.806	1.937.393	614.860
SAINTAIN	1.610	118	8.946	1.535	1.050	--	15.488	3.872	4.641	574	--	10.272	7.301	692	24.434	15.679	76.408	13.486	241.109	171.114

NOTE: Area sown and grain production of maize,cow vetch and wild vetch are included in cereals and pulses.

Source : SIS

NUMBER OF LIVESTOCKS, ANIMALS MILKED AND SLAUGHTERED AND POULTRY

LIVESTOCKS	ANKARA HEAD	ÇORUM HEAD	ÇANKIRI HEAD	TOTAL OF PROJECT REGION HEAD	TOTAL OF TURKEY HEAD
SHEEP	1,833,650	680,250	513,840	3,027,740	49,636,000
ORDINARY GOAT	38,480	97,300	5,310	141,090	14,655,000
ANGORA GOAT	749,140	122,960	177,060	1,049,160	3,5[illegible],000
COW	282,080	108,483	132,170	522,733	7,758,008
OXEN	18,915	23,348	33,696	75,959	1,586,254
BULL	26,136	35,926	10,656	72,718	952,536
YOUNG CATTLE	127,480	70,020	51,890	249,390	4,187,080
BUFFALO	18,824	38,629	25,558	83,011	808,000
HORSE	8,070	8,800	10,100	26,970	744,000
MULE	3,080	7,360	13,800	24,240	265,000
DONKEY	45,290	33,470	26,880	105,640	1,252,000
Poultry, Apiculture and Sericulture (1)					
HEN AND COCK	2,696,514	816,200	617,300	4,130,014	59,615,690
TURKEY	199,240	96,600	63,550	359,390	3,071,901
BEEHIVE	87,320	31,620	35,200	1,541,140	2,547,768
NUMBER OF SILK WORM BOXES OPTIEA	613	---	---	613	78,080
ANIMALS MILKED	1,306,860	548,340	420,970	2,276,170	38,821,140
SHEEP	1,036,720	367,700	278,640	1,683,060	24,598,480
ORDINARY GOAT	10,570	38,690	1,930	51,190	7,138,230
ANGORA GOAT	109,520	51,250	41,800	202,570	1,292,530
COW	141,040	75,940	92,520	309,500	5,525,530
BUFFALO COW	9,010	14,760	6,080	29,850	266,370
Number of Animals (All Ages) Slaughtered in Municipality Slaughter-houses	1,131,760	185,450	34,850	1,352,060	15,724,670
SHEEP	789,560	73,380	8,810	871,750	10,421,560
ORDINARY GOAT	17,290	52,290	11,770	81,350	2,222,670
ANGORA GOAT	88,170	18,000	6,510	112,680	238,960
CATTLE	228,310	36,810	7,190	272,310	2,742,350
BUFFALO	8,450	4,970	570	13,990	94,010

(1) NUMBER

Source : SIS

PRODUCTS	ANKARA	ÇORUM	ÇANKIRI	TOTAL OF PROJECT REGION	TOTAL OF TURKEY
	Production(ton)	P	P	P	P
MILK PRODUCTION	86,175	53,265	71,775	211,215	5,207,915
SHEEP MILK	25,920	14,710	7,245	47,875	1,179,135
ORDINARY GOAT MILK	585	1,550	60	2,195	543,700
ANGORA GOAT MILK	2,190	2,305	1,255	5,750	52,470
COW MILK	49,370	26,580	58,290	134,240	3,209,640
BUFFALO MILK	8,110	8,120	4,925	21,155	222,970
MEAT PRODUCTION	22,985	3,260	980	27,225	332,660
LAMB-MUTTON	9,845	985	160	10,990	137,705
ORDINARY GOAT MEAT	270	725	200	1,195	35,730
ANGORA GOAT MEAT	1,185	240	110	1,535	3,110
BEEF VEAL	10,750	980	435	12,165	146,700
BUFFALO MEAT	935	330	75	1,340	9,050
HIDE PRODUCTION (1)	1,221,010	198,760	36,510	1,456,280	16,917,760
SHEEP HIDE	850,160	79,080	9,210	938,450	11,207,590
ORDINARY GOAT HIDE	17,630	55,250	12,060	84,940	2,364,120
ANGORA GOAT HIDE	95,770	19,040	6,840	121,650	255,670
CATTLE HIDE	248,230	39,980	7,770	295,980	2,981,760
BUFFALO HIDE	9,220	5,410	630	15,260	102,490
OTHER ANIMAL PRODUCTS					
WOOL	3,530	955	765	5,250	62,075
HAIR	25	35	5	65	9,335
MOHAIR	1,690	130	250	2,070	5,620
HONEY	976	207	573	1,756	34,030
WAX	141	8	28	177	2,274
HEN EGGS(2)	170,675	74,379	50,002	295,056	4,993,394
JAPANESE SILKWORM COCOON	16	--	--	16	1,998

(1) NUMBER
(2) In thousands

Source: SIS

NUMBER OF AGRICULTURAL EQUIPMENT AND MACHINERY

MACHINES AND EQUIPMENT	ANKARA Number	ÇORUM N	ÇANKIRI N	TOTAL OF PROJECT REGION N	TOTAL OF TURKEY N
WOODEN PLOW	13,456	11,715	11,137	22,852	823,781
WALKING PLOW	7,508	9,370	7,079	23,957	779,911
HOLD PLOW BOARD TYPE TRACTOR	20,484	12,064	6,243	38,791	454,247
SWIVEL TYPE TRACTOR PLOW	733	410	1,336	2,169	38,002
RIDGING PLOW	53	21	3	77	19,215
DISK TYPE TRACTOR PLOW	2,904	831	95	3,910	74,528
ONE WAY	32	10	--	42	11,848
ROTARY CULTIVATOR	14	--	2	16	5,637
CULTIVATOR	13,667	10,617	4,101	28,385	187,591
LAND ROLLER	607	1,430	1,566	3,611	35,604
DISK HARROW	2,547	655	1,286	4,488	82,924
SPIKE TOTH HARROW	3,898	2,513	792	7,203	346,538
ROTARY HARROW	283	--	2	285	11,272
HAY RAKE	1,795	40	5	1,840	83,313
PLANKER	8,432	10,554	12,935	31,921	715,818
SOD WEEDER	219	10	--	319	10,860
HORSE DRAWN HOE	19	163	--	182	14,216
TRACTOR DRAWN HOE	6	30	10	54	67,027
HORSE DRAWN GRAIN DRILL	275	25	18	318	16,040
TRACTOR DRAWN GRAIN DRILL	12,214	474	98	12,786	92,790
COMBINE DRILL	6,032	520	1,125	7,677	57,925
BEET PLANTER	77	70	160	307	10,360
UNIVERSAL PLANTER	24	5	--	29	23,853
POTATO PLANTER	4	7	--	11	421
MANURE SPREADER	3	10	--	13	1,460
FERTILIZER DISTRIBUTER	7,002	711	170	7,883	90,893
MOWER	1,232	189	1,128	2,549	27,119
BINDER	9	92	10	111	5,073
BALER	412	90	6	508	6,530
THRESHER	6,797	3,588	4,132	14,517	109,140
FARMING MILL	4,786	2,582	271	8,039	74,160
THRESHING SOLD	5,943	24,510	13,663	45,116	756,226
DOMESTIC THRESHER	2,257	1,976	520	4,753	46,482
COMBINE HARVESTER	1,966	204	26	2,196	13,477
POTATO HARVESTER	9	2	--	11	850
BEET HARVESTER	48	--	30	78	1,148
HORSE DRAWN HAY LOADER	30	4	--	34	4,178
TRACTOR DRAWN HAY LOADER	140	30	89	259	8,171
CHOPPER AND FORAGE HARVESTER	8	1	--	9	224
SEED CLEANER	332	92	56	480	3,054
WINNOWER	18	1	7	26	1,304
FEED GRINDER	231	339	29	599	5,264
HAND SACK SPRAYER	3,756	2,510	1,042	7,308	307,225
TRACTOR PTO SPRAYER	5,480	1,027	295	6,802	51,754
ENGINE DRIVEN SPRAYER	1,168	365	239	1,764	56,656
DUSTER	415	360	159	934	41,772
BLOWER	530	442	459	1,601	81,003
CENTRIFUGICAL PUMP	1,855	574	290	2,719	40,683
MOTOPUMP	6,542	1,228	1,058	8,828	229,840
DEEP-WELL TURBINE PUMP	802	92	598	1,492	24,250
SPRINKLER	4,439	82	28	4,549	41,093
CREAM SEPERATOR	9,563	1,705	183	11,451	262,261
BUTTER CHURN	12,682	31,270	20,758	64,710	974,315
EGG INCUBATOR	50	22	3	75	1,306
CANOPIED BROADER	48	76	19	143	3,276
MILKING MACHINE	237	14	3	254	1,667
TRAILER(FARM USE)	22,232	11,789	6,250	40,271	459,169
JEEP (FARM USE)	420	16	10	454	3,445
TRUCK(FARM)	430	12	51	93	5,954
TRACTOR	23,371	11,399	6,176	40,949	491,001
STALK CUTTER	1	7	--	8	13,992

Source : SIS

ANNEX-II

A.II.1. TECHNICAL ASSUMPTIONS

Parent Stock Farm

Growing period	18 weeks
Laying period	54 weeks
No. of parent houses	20 houses
Size of each house	80x20 meters
No. of birds/house	7,150 birds
Density of birds	4,47 birds/m^2
Mortalitiy	10 %
Cocks/hens ratio	1/10 cocks/hens
Egg production/hen	157 eggs/54 weeks
Out of standard eggs	11 %7
Eggs for hatchery	146 eggs
Non hatchable eggs	24 %16
Hatchable eggs	122 eggs/one dayold chicks/hen

Feed Consumption

Growing	0-18 weeks	13.250 kg
Laying	19-72 weeks	48.250 kg
Total	0-72 weeks	61.5 kg

Total egg production	13,600,000 eggs/year
Total out of standard eggs	881,000 eggs/year
Total eggs to hatching	12,619,000 eggs/year
Total non-hatchable eggs	2,019,000 eggs/year
Total hatchable eggs	10,600,000 eggs/year of one dayold chicks

Broiler Grow out Farms (All in-all out)

Growing period	56 days
No. of broiler houses	44 houses
Size of each house	80x20 meters
Birds/house	20,000 birds
Density of birds	12.5 birds/m^2
No. of cycles/year	6 cycles
Feed conversion	2 kg feed/kg live weight
Mortalitiy	6 %
Live weight/broiler	1.867 kg
Processing yield	0.75 kg meat/kg live weight
Meat weight/broiler	1.4 kg

Cost and Price Assumptions

Buying price of broiler from C/F	0.82 $/kg live
Buying price of feed raw materials	120 $/ton
Import price of parents	2 $/day old chick
Sales price of meat (Domestic)	1.128 $/kg
Export price of meat (CIF)	1.200 $/kg
Sales price of broiler chicks	0.255 $/day old chick
Sales price of feed	142 $/ton
Offal meat sales	1 $/kg
Discarded eggs sales	0.029 $/egg

A.II.2. FEEDING RECOMMENDATIONS FOR PARENT STOCK

" Laying Period 19-72 weeks "

Age in wks	Age in days	Feeding Rate per bird (gram)
0	0-6	FF (11 Daily)
1	7	FF (18 Daily)
2	14	32-36 Daily
3	21	40-45 Daily
4	28	80-90 Every Other Day
5	35	90-95
6	42	95-100
7	49 Day	95-105 Day
8	56 Day	100-115 Day
9	63 Day	105-118 Day
10	70 Day	110-127 Day
11	77 Day	115-132 Day
12	84 Day	122-141 Day
13	91 Day	127-150 Day
14	98 Day	132-159 Day
15	105 Day	136-163 Day
16	112 Day	141-173 Day
17	119 Day	145-182 Day
18	126 Day	150-194 Day
19	133 Day	192-200 Day
20	140 Day	163-209 Day
21	147 Day	173-210 Day
22	154 Day	182-227 Day
23	161 Day	200-245 Day
24	168 Daily	114-132 Daily
25	175 Daily	127-145 Daily
26	182 Daily	136-150 Daily
27	189 Daily	145-159 Daily
28	196 Daily	154-163 Daily
36	252 Daily	
37	259 Gradually Reduce Feed Intake to 136-150 @ 72 wks.	
72	504	

FF: Full Feeding

A.II.3. DAILY WATER REQUIREMENT

Age in weeks	Litres per 1,000 birds (Approximate)
1	35
2	63
3	68
4	91
5	99
6	106
7	110
8	121
9	132
10	148
11	151
12	183
13	174
14	184
15	189
16-22	208-246

Note : Laying hens require 225-300 lt. daily, per 1,000 birds. Water consumption increases rapidly when temperatures exceeds 32°C.

ANNEX-III

A.III. COST OF INVESTMENT

A.III.1.Requirement of Land

In order to prevent contamination and due to sanitary considerations, facilities of the project must be seperately located and distances among facilities should be between 10 and 25 kms. Land requirement for each facility in this integrated system are ;

A.III.1.1.Land Requirement of Parent Farm

There will be 20 parent houses each having 1,600 m^2 building area. Required land for each parent house is fivefold of this building dimensions. Therefore,required land for parent houses will be ;

$$20 \times 5 \times 1,600\ m^2 = 160,000\ m^2$$

This land should be 3-5 kms away from main roads and can be in a non-farming area.

A.III.1.2.Land Requirement of Broiler Farm

There will be 44 broiler houses each having 1,600 m^2 building area. Required land for each broiler house is fivefold of the building dimensions. Therefore,required land for broiler houses will be ;

$$44 \times 5 \times 1,600\ m^2 = 352,000\ m^2$$

This land should be 3-5 kms away from main roads and can be in a non-farming area.

A.III.1.3.Land Requirement of Feed Mill

Required land for 10 m tons/hour capacity feed mill and 550 m^3 capacity silo of the project will be the fivefold of 1,000 m^2 covered area. This 5,000 m^2 land should be at the center of the broiler and parent stock farms and near a main road.

A.III.1.4.Land Requirement of Hatchery

Required land for the hatchery center will be 4.4 times of 1,143 m^2 covered area. This 5,000 m^2 land should preferably be in between the broiler and parent farms and preferably not near to a main road.

A.III.1.5.Land Requirement of Processing and Storing Facilities

10,000 m^2 land will be required for 5,500 birds/hour capacity processing plant,500 m tons capacity cold store,rendering facility,warehouse, offices and auxilary buildings with their respective building areas of 2,000 , 500 , 500 , 1,000 , 500 and 500 square meters.

This land should be on the main road and should preferably be close to the broiler houses.

A.III.2.Cost of Land

In the project region,land price is approximately \$ 3/m^2 near to the main roads and \$ 1/m^2 for non-farming land off the main roads.

Center 1	(Parent Farm)	$160,000\ m^2 \times \$\ 1/m^2$	=	$ 160,000
Center 2	(Broiler Farm)	$352,000\ m^2 \times \$\ 1/m^2$	=	$ 352,000
Center 3	(Feed Mill)	$5,000\ m^2 \times \$\ 3/m^2$	=	$ 15,000
Center 4	(Hatchery)	$5,000\ m^2 \times \$\ 3/m^2$	=	$ 15,000
Center 5	(Processing,Storing,etc.)	$10,000\ m^2 \times \$\ 3/m^2$	=	$ 30,000

TOTAL COST OF LAND $ 572,000

A.III.3. Requirement of Infrastructure

Land leveling,water supply (well,pump,etc.), electrical supply (transformer,etc.),waste water system,roads and parking,fencing,etc. are the required items of the infrastructure.

A.III.4. Cost of Infrastructure

Cost of infrastructure for each center of the project and for the total are :

	NUMBER OF THE CENTERS (1,000$)					
	1	2	3	4	5	TOTAL
Land Leveling	32	70	5	5	10	122
Water Supply	20	30	5	5	10	70
Electrical Supply	30	40	10	10	20	110
Waste Water System	20	30	5	5	10	70
Roads and Parking	10	15	5	5	10	45
Fencing	20	40	5	5	10	80
Others	10	20	10	10	20	70
TOTAL (1,000 $)	142	245	45	45	90	567

A.III.5. Requirement of Buildings

A.III.5.1. Center No.1 - Parent Stock Farm Houses (Prefabricated):

20 Houses x 1,600 m^2 x 40 $\$/m^2$	=	$	1,280,000
20 Feed Silos(10 tons) x $ 1,100	=	$	22,000
Total Cost of Parent Stock Farm Building		$	1,302,000

A.III.5.2. Center No.2 - Broiler Farm Houses (Prefabricated):

44 Houses x 1,600 m^2 x 40 $\$/m^2$	=	$	2,816,000
44 Feed Silos(10 tons) x $ 1,100	=	$	48,400
Total Cost of Broiler Farm Buildings		$	2,864,400

A.III.5.3. Center No.3 - Feed Mill

225 m^2 x 5 Storeys x 80 $\$/m^2$	=	$	90,000
6 Silos (550 m^3) x 133 m^2 x 80 $\$/m^2$	=	$	63,840
Total Cost of Feed Mill Buildings		$	153,840

A.III.5.4. Center No.4 - Hatchery

1,143 m^2 x 120 $\$/m^2$	=	$	137,160

(Cost of installation included)

A.III.5.5.Center No.5 - All included

			(1,000 $)
Processing Plant	2,000 m^2 x 120 $/$m^2$	=	240
Rendering	500 m^2 x 100 $/$m^2$	=	50
Cold Store	500 m^2 x 100 $/$m^2$	=	50
Cold Store Insulation	500 m^2 x 80 $/$m^2$	=	40
Warehouse	1,000 m^2 x 80 $/$m^2$	=	80
Main Office	500 m^2 x 200 $/$m^2$	=	100
Auxilary Buildings	500 m^2 x 100 $/$m^2$	=	50
Total of Center No.5 Buildings			610

A.III.6.Summary Cost of Buildings

Center No.1	$ 1,302,000
Center No.2	$ 2,864,400
Center No.3	$ 153,840
Center No.4	$ 137,160
Center No.5	$ 610,000
Total Cost for Buildings	$ 5,067,400

A.III.7.Requirements and Costs of Imported Machinery and Equipment

The following machinery and equipment prices and specifications were obtained from several Major Western European and U.S.A. manufacturers:

1. Hatchery Equipment

Total weekly setting capacity 241,920 chicken eggs, and total system capacity will be 846,720 chicken eggs.

The system includes 8 super setters, 8 hatchers, 2 information panels, 1 pneumatic control pack, 1 air compressor, 1 water pump with tank, 1 spare parts pack, lab and machine shop equipments;

TOTAL COST, (CIF) $ 277,393

2. Feed Mill Machinery and Equipment

Main machinery and equipment of the feed mill will be the locally manufactured.Two dry extruders for processing raw soya beans,each 1.0 ton/hour will be imported ;

TOTAL COST,(CIF) $ 100,000

3. Processing Plant Machinery and Equipment

Capacity is 5,500 birds per hour.2,000 crates for live birds,semi-automatic scales,defeathering department,evisceration department,chilling department,weighing and packing department,offal transport department,electrical and piping installation for all quoted equipment,lab. and machine shop equipment ;

TOTAL COST,(CIF) $ 985,070

4. Protein Rendering Plant Machinery and Equipment

Capacity is 2.5 tons per hour;

TOTAL COST, (CIF) $ 176,824

5. Frozen Storage Machinery and Equipment

Frozen storage for 480 m^2 (960 m tons) at -20°C and 20 m^2 at -40°C (Shock-Tunnel), amonia refrigeration system, amonia generators and all kinds of installation.

TOTAL COST, (CIF) $ 147,400

6. Summary of Imported Machinery and Equipment

Hatchery	$ 277,393
Feed Mill	$ 100,000
Processing Plant	$ 985,070
Rendering Plant	$ 176,824
Refrigeration Equipment	$ 147,400
TOTAL COST, (CIF)	$ 1,686,687
VAT (10 %)	168,669
TOTAL COST, (Imported)	$ 1,855,356

A.III.8. Requirement and Cost of Local Machinery and Equipment

1. Parent Stock Houses' Machinery and Equipment

Capacity: 20,000 chicken in 1,600 m^2

Feeding, drinking, lighting, heating and ventilation systems, nests ;

Per house : $ 40,000

TOTAL COST FOR 20 PARENT STOCK HOUSES $ 800,000

2. Broiler Houses' Machinery and Equipment

Capacity: 20,000 broilers in 1,600 m^2,

Feeding,drinking,lighting,heating and ventilation systems;

Per house : $ 38,000

TOTAL COST FOR 44 BROILER HOUSES $ 1,672,000

3. Feed Mill Machinery and Equipment

Capacity 10 tons/hour,including dosing,hopper,hammer mill,mixer,filters,augers,pelletizing,automatic bags filler,weighing scale,truck scale and electrical section;

TOTAL COST $ 321,000

4. Summary of Local Machinery and Equipment

Parent Houses	$ 800,000
Broiler Houses	$ 1,672,000
Feed Mill	$ 321,000
TOTAL COST (Local)	$ 2,793,000

A.III.9. Requirement and Cost of Vehicles

1. Feed Trucks

Feed distribution to parent stock, broiler farms and C/F broiler farms.
10 Ton capacity feed trucks including discharging auger, $ 20,000/each.

Total Cost of Feed Trucks ;

14 Trucks x $ 20,000 = $ 280,000

2. Chick Carriers

For 1 day old chicks distribution from hatchery to broiler houses.
12,000 chicks capacity including racks (7 tons capacity), $ 20,000/each.

Total Cost of Carriers ;

3 Carriers x $ 20,000 = $ 60,000

3. Broiler Carriers

From broiler houses to processing plant, 10,000 broiler capacity (7 tons), $ 20,000/each.

Total Cost of Broiler Carriers ;

5 Carriers x $ 20,000 = $ 100,000

4. Refrigerated Trucks

Chicken meat distribution for local market (Ankara) 30 tons per day, each truck with 5 tons capacity, $ 22,000/each.

Total Cost of Refrigerated Trucks ;

6 Trucks x $ 22,000 = $ 132,000

5. Four Wheel Drive Cars

For Extension Services, $ 8,000/each.

Total Cost of 4-W Drive Cars ;

10 cars x $ 8,000 = $ 80,000

6. Tractors

One for the parent stock farm and two for broiler farm, for fertilizer collection, with trailers $ 11,000/each.

Total Cost of Tractors and Trailers ;

3 x $ 11,000 = $ 33,000

7. Automobiles

Four-door automobiles for company administration, $ 5,000/each.

Total Cost of Automobiles ;

6 automobiles x $ 5,000 = $ 30,000

8. Summary Cost of Vehicles (1,000 $)

14	Feed Trucks	280
3	Chicks Carriers	60
5	Broiler Carriers	100
6	Refrigerated Trucks	132
10	4-WD Cars	80
3	Tractors	33
6	Automobiles	30
	Total Cost of Vehicles	715

A.III.10. Cost of Preoperating Expenses

Full Feasibility Study	$ 150,000
Legal Fees for Company Establishment	$ 30,244
Total Preoperating Expenses	$ 180,244

ANNEX-IV

A.IV. DIRECT OPERATING COSTS

A.IV.1. Raw Material

A- Broilers from Contract Farms

EBK (Meat and Fish Corportaion) buys live chicken at 430 TL/kg in December 1985 delivered to their plant in Ankara. Therefore, it can be assumed that the company will buy the broilers at that price.

$$5{,}000{,}000 \text{ chickens} \times 1.87 \text{ kg} \times \frac{430 \text{ TL/kg}}{550 \text{ TL/\$}} = \$\ 7{,}310{,}000$$

Premiums to C/F (5%) = $ 365,500

Total Cost $ 7,675,500

B- Feed Ingredients

Average bulk feed sales price of the State owned Feed Industry is 78 TL/kg (142 $/m ton) in the Ankara market. However, unit feed cost of the company will be around $ 120 per m ton, because the company will produce its own feed in its own feed mill. Some feed ingredients will be obtained from the rendering operations. Feed requirement is 44,000 m tons for the broiler and parent stocks farms at full capacity. Therefore, feed ingredients cost will be ;

44,000 m tons x 120 $/m ton = $ 5,280,000

C- Imported Day old Parent Stock Chicks

Cost is : 88,000 chicks x 2 $/chick = $ 176,000

D- Medication and Chemicals

$ 0.01 per broiler x 10,600,000	=	$ 106,000
$ 0.1 per parent x 132,000	=	$ 13,200
Other cleaning materials and saw dust		$ 100,000
Total Cost		$ 219,200

E- Summary of Raw Materials ($)

A. Broilers	7,675,500
B. Feed	5,280,000
C. Parent Stock Chicks	176,000
D. Medication and Chemicals	219,200
Total Cost of Raw Material	13,350,700

A.IV.2. Direct Labor Cost

	Number of Workers 1st Shift	Number of Workers 2nd Shift	Monthly Wage (TL)	Monthly Costs (1,000TL)
Parent Houses				
Unskilled	22	11	60,000	1,980
Skilled	5	2	90,000	630
Supervisory	2	1	120,000	360
Broiler House				
Unskilled	48	24	60,000	4,320
Skilled	10	5	90,000	1,350
Supervisory	4	2	120,000	720
Feed Mill				
Unskilled	20	20	60,000	2,400
Skilled	5	5	90,000	900
Supervisory	2	2	120,000	480
Hatchery				
Unskilled	10	10	60,000	1,200
Skilled	8	8	90,000	1,440
Supervisory	2	2	120,000	480
Processing Plant				
Unskilled	10	2	60,000	720
Skilled	20	—	90,000	1,800
Supervisory	10	—	120,000	1,200
Rendering				
Unskilled	10	2	60,000	720
Skilled	10	—	90,000	900
Supervisory	5	—	120,000	600
Frozen Storage				
Unskilled	10	2	60,000	720
Skilled	4	2	90,000	540
Supervisory	2	1	120,000	360
Truck Drivers	30	5	90,000	3,150
TOTAL	249	106		TL 26,970

Monthly Direct Labor Cost	$ 49,036
Annual Labor Cost : 12 x $ 49,036	$ 588,432
Social Benefits (30 %)	$ 176,530
TOTAL DIRECT LABOR COST	$ 764,962

A.IV.3. Utilities

The annual usage of the utilities can be reasonably estimated, although the actual cost of utilities will largely depend on the physical location of the plant.

A- Electricity

Annual consumption amounts to 4.63 million kilowatt hours. At $ 0.07/KWH, the annual cost will be $ 324,103.

Item	KW/Hour	Hour/Year	KWH/Year(1,000)	Cost($)
Parent Farm	160	3,600	576	40,320
Broiler Farm	352	3,600	1,267	88,704
Feed Mill	126	4,950	624	43,659
Hatchery	96	8,760	841	58,868
Processing Plant	94	3,600	338	23,688
Rendering	37	3,600	133	9,324
Frozen Storage	56	8,760	491	34,340
Others	100	3,600	360	25,200
TOTAL			4,630	324,103

B- Kerosene

Annual consumption amounts to 780,000 liters, rated at $ 0.37/liter.

	Lt/Year	cost($)
Parent Farm	200,000	74,000
Broiler Farm	440,000	162,800
Hatchery	20,000	7,400
Processing and Others	100,000	37,000
TOTAL	780,000	281,200

C- Diesel and Gasoline for Vehicles

Item	Unit	Km/Year	Cost ($/Km)	Cost ($)
Feed Trucks	14	33,000	0.127	58,674
Chick and Chicken Carriers	8	33,000	0.127	33,528
Refrigerated Trucks	6	33,000	0.090	17,820
4-W.D. Cars	10	33,000	0.045	14,850
Automobiles	6	33,000	0.045	8,910
Tractors	3	16,500	0.090	4,455
	Total Diesel and Gasoline Cost			$ 138,237
	Oil and Services (30 %)			$ 41,471
	Total Cost			$ 179,708

Summary of Utilities

a- Electricity	$ 324,103
b- Kerosene	$ 281,200
c- Diesel, Gasoline, Oil, Services	$ 179,708
Total Cost of Utilities	$ 785,011

A.IV.4. Packing

Packing Material	Quantity (Unit)	Unit Cost ($)	Cost ($)
Polyethylene Bags	10,000,000	0.0056	56,000
Corrugated Boxes (15 kg)	234,000	0.6	140,400
	Total Cost of Packing		$ 196,400

A.IV.5. Transportation (Export)

Iran, Iraq and Gulf Countries are the target export market of the project. 20 Tons capacity refrigerated truck charge varies between $ 1,600 and 4,200 according to destination of the country. Therefore, it can be assumed as $ 2,500 on the average. Also, 5% insurance expense should be added to this price. Hence, for the projected annual export capacity of 3,500 tons of broiler meat transportation cost will be:

Truck Rental :	3,500 tons x $ 2,500/20 tons	=	$ 437,500
Insurance	5 %		$ 21,875
Total Cost of Transportation			$ 459,375

A.IV.6. Administration

The two cost components considered under this section are the personnel required for administration and the associated costs of maintaining an office. Total cost of management and staff is $ 521,890, including the 30% social benefits. The cost of office supplies, telephone, etc. is estimated to be 0.5% of total revenues. Therefore, administration cost will be $ 635,430. A break down of the details for this cost is given in the following pages.

A.IV.6. Administration Cost

	Number	Skill Level	Salary/Month (TL)	Annual Cost (1,000 TL)
General Manager	1	E	600,000	7,200
Finance Manager	1	M-E	400,000	4,800
Marketing Manager	1	M-E	400,000	4,800
Processing Manager	1	M-E	400,000	4,800
Production Manager	1	M-E	400,000	4,800
Processing Assistant Managers	3	M-E	300,000	10,800
Production Assistant Managers	3	M-E	300,000	10,800
Vet/Zoo. Specialists	10	M-E	300,000	36,000
Salesmen	8	ST	200,000	19,200
Bookkeepers/Personnel Staff	8	ST	200,000	19,200
Foremen	8	ST	200,000	19,200
Maintenance	8	ST	200,000	19,200
Technicians (Vet/Zoo)	16	ST	200,000	38,400
Secretaries	12	S	100,000	14,400
Clerks/Watchmen	10	N-S	60,000	7,200
	91			220,800
				$ 401,454
30 % Social Benefits				$ 120,436
Total Cost of Administrative Personnel				$ 521,890

Legend

E- Executive

M-E- Managerial Executive

ST- Staff

S- Skilled

N-S- Unskilled

Administrative Office Expense:

* Estimated Total Annual Revenues $ 22,708,732
* Administrative Office Expenses 0.5 % of Revenues = $ 113,540
* TOTAL ADMINISTRATION COST $ 635,430

A.IV.7. Sales Expense

Sales expenses have been allocated on a certain percentage of revenues.

$ 4,200,000	(Direct export sales revenue)	x 1.5 %	= $ 63,000
$12,790,090	(Domestic sales revenue)	x 1 %	= $ 127,901
$ 4,090,822	(Chicks and feed sales to C/F)	x 0.5 %	= $ 20,454
$ 315,636	(By - products)	x 1 %	= $ 3,156
	Total Annual Sales Expense		= $ 214,511

A.IV.8. Maintenance Cost

Maintenance expense has been allocated on a certain percentage of investment cost basis. No allowance was made on the land site.

Item	Original Cost of Investment ($)	% for Maintenance	Total of of Maintenance ($)
Buildings			
Parent houses	1,302,000	1	13,020
Broiler houses	2,864,400	1	28,644
Feed mill	153,840	1	1,538
Hatchery	137,160	1	1,372
Processing, etc.	610,000	1	6,100
Machinery and Equipment			
Parent houses	800,000	3	24,000
Broiler houses	1,672,000	3	50,160
Feed mill	431,000	3	12,930
Hatchery	305,132	3	9,154
Processing, etc.	1,440,223	3	43,207
Vehicles	715,000	5	35,750
	Total Annual Cost of Maintenance		$225,875

A.IV.9. Research and Development

$ 167,736 fund is allocated for Research and Development.