2. Insect Pests of Maize and Soybean (1973—1975)

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1) *Effect of soybean rotation in paddy field on some rice insects and grain yield*

Some paddy fields in the Phan Rice Experiment Station had been planted to rice in wet season and soybean in dry season alternately, while the rest fields had been continuously planted to rice in both seasons.

While no white head caused by stem borers was observed in these 2 different paddy fields, 50 and 12 silver shoots (8% and 6% of infestations by hill, respectively) caused by the rice gall midge were observed in the rice-soybean and the rice-rice fields in 50-hill count.

Grain yields of those two fields were 592 kg/rai in the rice-soybean field and 564 kg/rai in the rice-rice field, respectively.

It was recognized statistically by means of the Poission Distribution that silver shoots distributed mechanically in the paddy field.

It seems to be concluded that soybean cultivation in dry season introduces better yield of rice in the following wet season even though adverse effect on rice insect occurrence might be expected.

2) *Pest insects of maize and soybean*

At the Suphanburi Rice Experiment Station, European corn borer *(Ostrinia nubilalis)* and seed-corn maggot *(Hylemya platura)* in maize field, and bean webworm *(Syllepta ruralis)* and soybean stem miner *(Melanagromyza sojae)* in soybean field were the most injurious; their damages were not so significant throughout their ordinary growing seasons.

Other minor pest insect species observed were as follows:

Maize: Bombay locust *(Patanga succineta)*, short-winged rice grasshoppers *(Oxya* spp.), army worm *(Leucania separata)*, cabbage army worm *(Mamestra brassicae)*, corn earworm *(Heliothis obsoleta)*, common cutworm *(Agrotis fucosa)*, corn planthopper *(Pergrinus maidis*, and *Proutista moesta)*, corn leaf aphid *(Rhopalosiphum maidis)*, grain aphid *(Rhopalosiphum padi)*, rice thrips *(Chloethrips oryzae)*, grass flower thrips *(Frankliniella tenuicornis)*, and bugs.

Soybean: Green weevils *(Hypomeces squamosus,* and *Chlorophanus auripes)*, flax budworm *(Heliothis viriplaca)* bean tussock moth *(Dasychira locuples confusa)*, tobacco striped caterpillar *(Pyrrhia umbra)*, mulberry caterpiller *(Mamestra illoba)*, red belly black-dotted arctid *(Spilosoma punctaria)*, yellow belly black-dotted arctid *(Spilosoma lubricipeda)*, lima bean pod borer *(Etiella zinckenella)*, bean pyralid *(Lamprosema indicata)*, bean leaf beetle *(Colposcelis signata)*, two-striped leaf beetle *(Paraluperodes nigrobilineatus)*, soybean aphid *(Aphis glycines)*, and flies *(Rivellia basilaris, rivellia apicalis,* and *Melanagromyza dolichostigma)*.

3) *Pest insect injury of maize and soybean in the central and the northern Thailand*

Field infestation check on maize and soybean insects was made in March, 1974 covering central and northern Thailand. In general, the infestation of the insect pest mentioned above was relatively low, and the corn earworm of maize and/or the leafroller of soybean was significant in occurrence. The corn earworm infested 0—7% of maize, however, some places in northern Thailand (Fang, San Patong, and Mae Chan) showed as high as 28—34% infestation by plant. The leafroller commonly infested 6—34% of soybean by plant in the central region, and 58—92% in the North (Phrae, Lampang, Fang, and Mae Chan); the damage of soybean leaf was classified into the light grade. In other words, the leafroller damage was insignificant. No borer and grasshopper infestation of maize was seen during this period of the year.

4) *Maize and soybean insect appearance at Suphanburi with special attention to the cultural practice.*

In the case of maize, European corn borer *(Ostrinia nubilalis)*, leafminer, corn earworm *(Heliothis obsoleta)*, and aphids *(Rhopalosiphum* spp.*)* were evident. Infestations of these pests were relatively stable and low throughout a year; the damages of maize were insignificant.

In the case of soybean, leafroller *(Syllepta ruralis)*, leafminer, and soybean aphid *(Aphis glycines)* were evident, and used to increase their populations as the season advanced. Especially in the case of leafroller, nearly 100% of soybean plant was injured even if the damage of leaf was light.

There was no significant difference in the infestation of maize or soybean insect between single cultured maize or soybean and mix culture maize with soybean (Table 2-1 and 2). It was found that year round culture of maize or soybean introduced an increase of the pest insect population, and high infestation which had not been experienced before was recorded in the neighboring fields as well where those crops were grown in customary rotation.

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Table 2-1. Successive changes of maize and soybean insect injuries with reference to cultural practice (1974)

				August 21	September 4	September 24
Maize	Single culture	Species	Borer	8%	3%	28%
			Leafminer	5	7	6
			Earworm	14	6	15
	Mixed culture	Species	Borer	0	4	0
			Leafminer	4	2	5
			Earworm	10	7	7
Soybean	Single culture	Species	Leafroller	75%	90%	82%
			Leafminer	19	20	—
		Grade of leafroller injury	Healthy	—	9	12
			Light	—	79	76
			Moderate	—	12	12
			Heavy	—	0	0
	Mixed culture	Species	Leafroller	60	61	89
			Leafminer	15	10	—
		Grade of leafroller injury	Healthy	—	9	10
			Light	—	75	83
			Moderate	—	16	7
			Heavy	—	0	0

Remarks: The crops were seeded on July 16, 1974.

Table 2-2. Succesive changes of maize and soybean insect injuries with reference to cultural practice (1974)

				September 24	November 6	November 28
Maize	Single culture	Species	Borer	0%	1%	5%
			Leafminer	7	—	—
			Earworm	0	12	18
			Aphid	—	37	16
	Mixed culture	Species	Borer	0	0	2
			Leafminer	3	—	—
			Earworm	0	4	10
			Aphid	—	60	33
Soybean	Single culture	Species	Leafroller	19%	68%	99%
			Leafminer	—	13	—
		Grade of leafroller injury	Healthy	69	32	1
			Light	27	58	7
			Moderate	4	9	68
			Heavy	0	1	24
	Mixed culture	Species	Leafroller	4	73	100
			Leafminer	—	8	—
		Grade of leafroller injury	Healthy	94	26	0
			Light	6	61	17
			Moderate	0	12	60
			Heavy	0	1	23

Remarks: The crops were seeded on September 3, 1974.

Appendix

Climatic condition in 1974
(Suphanburi Rice Experiment Station)

		Temperature, °C			Precipitation m.m.	Pan evaporation mm/day
		Max.	Min.	Mean		
Jan.	E	27.9	12.0	20.0	—	6
	M	31.8	17.1	24.5	—	
	L	33.0	20.4	26.7	—	
	Month	31.0	16.6	23.8	—	
Feb.	E	33.6	19.4	26.5	—	5.7
	M	32.0	17.7	24.9	—	5.4
	L	33.6	21.3	27.4	—	5.2
	Month	33.0	19.3	26.2	—	5.4
Mar.	E	35.2	21.3	28.3	—	5.6
	M	35.0	22.7	28.9	78.1	5.3
	L	32.8	21.4	27.1	78.4	4.9
	Month	34.3	21.8	28.0	156.5	5.3
Apr.	E	34.7	22.7	28.7	62.3	4.7
	M	35.2	21.8	28.5	15.4	6.3
	L	34.4	23.3	28.9	115.6	4.8
	Month	34.8	22.6	28.7	193.3	5.1
May	E	36.0	24.1	30.1	0.1	6.9
	M	33.9	23.8	28.9	17.8	4.8
	L	32.4	23.7	28.1	54.9	4.6
	Month	34.0	23.9	29.0	72.8	5.4
June	E	33.5	23.8	28.7	9.0	4.6
	M	34.1	23.5	28.8	47.8	5.2
	L	34.2	23.1	28.7	119.6	5.6
	Month	33.9	23.5	28.7	176.4	5.1
July	E	33.4	23.1	28.3	7.2	5.0
	M	34.6	23.3	29.0	67.6	5.8
	L	33.4	23.3	28.4	51.8	4.3
	Month	33.8	23.2	28.5	126.6	5.1
Aug.	E	33.7	23.7	28.7	147.1	4.8
	M	32.4	23.9	28.2	10.8	2.7
	L	32.6	23.5	28.1	29.0	3.9
	Month	32.9	23.6	28.3	186.9	3.8
Sept.	E	33.2	23.2	28.2	96.5	4.8
	M	32.7	23.0	27.9	40.0	6.0
	L	31.8	23.5	27.7	82.0	4.9
	Month	32.5	23.2	27.9	218.5	5.3
Oct.	E	33.7	23.1	28.4	215.3	5.2
	M	32.1	23.1	27.6	148.6	4.5
	L	32.3	23.7	28.0	43.8	4.4
	Month	32.7	23.3	28.0	407.7	4.7
Nov.	E	31.7	22.8	27.3	42.9	4.0
	M	29.9	21.2	25.6	7.0	3.8
	L	29.8	19.3	24.6	—	4.2
	Month	30.5	21.1	25.8	49.9	4.0
Dec.	E	31.8	21.5	26.6	—	3.7
	M	29.3	18.5	23.9	—	4.2
	L	30.5	18.5	24.5	—	4.5
	Month	30.5	19.4	25.0	—	4.1
Year		32.8	21.8	27.3	1588.6	4.8

Climatic condition in 1975
(Suphanburi Rice Experiment Station)

		Temperature, °C			Precipitation m.m.	Pan evaporation mm/day
		Max.	Min.	Mean		
Jan.	E	28.2	19.6	23.9	—	3.0
	M	29.5	20.5	25.0	112.5	2.4
	L	31.9	19.1	25.5	—	4.1
	Month	29.9	19.7	24.8	112.5	3.2
Feb.	E	34.3	21.2	27.8	—	4.5
	M	34.1	20.0	27.1	—	5.2
	L	33.1	19.6	26.4	—	5.5
	Month	33.8	20.3	27.1	—	5.1
Mar.	E	35.7	22.6	29.2	—	5.9
	M	36.1	23.7	29.8	—	5.8
	L	36.0	23.5	29.8	0.8	5.9
	Month	35.9	23.3	29.6	0.8	5.9
Apr.	E	34.9	23.8	29.4	9.1	6.1
	M	37.7	24.8	31.3	—	7.2
	L	38.0	24.7	31.4	—	7.3
	Month	36.9	24.4	30.7	9.1	6.8
May	E	33.6	23.5	28.6	48.7	4.6
	M	35.9	24.1	30.0	73.3	6.7
	L	34.0	23.8	28.9	111.7	6.1
	Month	34.5	23.8	29.2	233.7	5.8
June	E	33.3	23.4	28.4	26.9	4.5
	M	33.2	23.8	28.5	33.9	4.8
	L	32.6	23.3	27.9	54.1	5.7
	Month	33.0	23.5	28.3	114.9	4.9
Jul.	E	34.4	22.9	28.7	27.8	6.5
	M	33.1	23.0	28.1	22.4	4.6
	L	34.1	22.9	28.5	13.2	5.9
	Month	33.8	22.9	28.4	63.4	5.7
Aug.	E	33.5	23.6	28.6	5.5	5.7
	M	33.7	23.3	28.5	35.0	4.8
	L	32.6	22.7	27.7	151.7	4.3
	Month	33.2	23.1	28.2	192.2	4.9
Sept.	E	32.1	22.6	27.4	39.5	4.5
	M	31.7	23.5	27.6	52.4	4.2
	L	32.3	23.3	27.8	112.5	5.1
	Month	32.0	23.1	27.6	204.4	4.6
Oct.	E	31.9	23.2	27.6	68.2	4.4
	M	30.7	23.3	27.0	30.5	5.1
	L	30.2	24.3	27.3	92.8	4.2
	Month	30.9	23.6	27.3	191.5	4.6
Nov.	E	29.7	22.5	26.1	38.8	4.0
	M	30.6	22.8	26.7	6.8	4.1
	L	27.1	18.2	22.7	—	4.8
	Month	29.2	21.1	25.2	45.6	4.3
Dec.	E	31.6	22.6	27.1	53.7	4.3
	M	24.6	16.5	20.6	--	4.1
	L	25.5	12.2	18.9	—	4.2
	Month	27.2	17.0	22.1	53.7	4.2
Year		32.5	22.2	27.4	1,221.8	5.0

Climatic condition in 1976
(Suphanburi Rice Experiment Station)

		Temperature, °C			Precipitation m.m.	Pan evaporation mm/day
		Max.	Min.	Mean		
Jan.	E	30.0	14.7	22.4	—	4.4
	M	28.3	13.1	20.7	—	4.2
	L	31.2	16.6	23.9	—	4.7
	Month	29.8	14.9	22.4	—	4.4
Feb.	E	30.5	19.2	24.9	34.3	4.3
	M	33.2	21.8	27.5	—	4.1
	L	34.3	22.1	28.2	—	5.0
	Month	32.6	21.0	26.8	34.3	4.4
Mar.	E	34.0	21.0	27.5	—	6.1
	M	35.0	23.5	29.3	7.8	6.4
	L	36.2	24.4	30.3	1.2	7.7
	Month	35.1	23.0	29.1	9.0	6.8
Apr.	E	36.5	25.0	30.8	—	8.6
	M	38.0	25.8	31.9	—	10.4
	L	34.9	25.0	30.0	5.5	7.0
	Month	36.5	25.2	30.8	5.5	8.7
May	E	31.3	23.6	27.5	220.9	6.9
	M	33.6	25.4	29.5	24.9	5.9
	L	32.0	24.6	28.3	22.1	5.4
	Month	32.3	24.5	28.4	267.9	6.1
Jun.	E	32.4	24.2	28.3	28.4	5.6
	M	35.0	24.7	29.9	—	7.1
	L	33.9	24.9	29.4	13.0	6.1
	Month	33.8	24.6	29.2	41.4	6.3
July	E	32.9	24.3	28.6	7.8	4.1
	M	33.3	24.2	28.8	2.6	6.0
	L	33.4	24.8	29.1	51.2	5.6
	Month	33.2	24.4	28.8	61.6	5.2
Aug.	E	31.8	24.5	28.2	21.1	5.1
	M	32.1	24.1	28.1	58.9	5.3
	L	30.7	24.1	27.4	34.6	4.0
	Month	31.5	24.2	27.9	114.6	4.8
Sept.	E	30.1	23.5	26.8	197.9	4.4
	M	32.1	24.5	28.3	103.9	5.3
	L	32.2	25.2	28.7	98.9	5.2
	Month	31.5	24.4	28.0	400.7	5.0
Oct.	E	31.2	25.0	28.1	65.2	4.4
	M	30.7	24.8	27.8	38.7	3.8
	L	30.8	24.6	27.7	129.2	4.4
	Month	30.9	24.8	27.9	233.1	4.2
Nov.	E	31.3	24.7	28.0	44.2	4.7
	M	29.6	22.7	26.2	—	4.2
	L	25.8	17.2	21.5	—	4.0
	Month	28.9	21.5	25.2	44.2	4.3
Dec.	E	29.2	18.7	24.0	—	3.9
	M	30.0	18.8	24.4	—	4.7
	L	31.4	21.5	26.5	5.4	4.5
	Month	30.2	19.7	25.0	5.4	4.4
Year		32.2	22.7	27.5	1,217.7	5.4

Climatic condition in 1977
(Suphanburi Rice Experiment Station)

		Temperature, °C			Precipitation m.m.	Pan evaporation mm/day
		Max.	Min.	Mean		
Jan.	E	30.9	20.2	25.6	—	4.9
	M	31.3	19.2	25.3	—	4.3
	L	32.3	20.8	26.6	—	4.4
	Month	31.5	20.1	25.8	—	4.5
Feb.	E	31.7	20.4	26.1	—	5.3
	M	31.4	19.6	25.5	—	5.7
	L	32.5	19.4	26.0	—	6.7
	Month	31.8	19.8	25.8	—	5.9
Mar.	E	32.0	20.3	26.2	1.3	5.8
	M	34.3	24.1	29.2	—	6.5
	L	33.2	24.2	28.7	5.8	6.2
	Month	33.2	22.9	28.1	7.1	6.2
Apr.	E	34.2	24.3	29.2	19.8	6.7
	M	35.9	27.0	31.5	13.1	7.3
	L	35.6	26.0	30.8	—	7.5
	Month	35.2	25.8	30.5	32.9	7.2
May	E	34.0	24.6	29.3	23.8	6.6
	M	34.2	25.4	29.8	7.0	6.9
	L	34.5	25.6	30.1	6.2	6.1
	Month	34.2	25.2	29.7	37.0	6.5
Jun.	E	35.0	25.3	30.2	11.1	7.3
	M	35.3	25.8	30.6	5.1	6.7
	L	35.4	25.4	30.4	9.4	8.2
	Month	35.3	25.5	30.4	25.6	7.4
July	E	33.6	24.5	29.1	61.5	6.9
	M	34.5	25.0	29.8	25.0	6.7
	L	31.9	24.6	28.3	23.9	4.0
	Month	33.3	24.7	29.0	110.4	5.8
Aug.	E	32.9	24.3	28.6	11.8	5.4
	M	33.7	25.0	29.4	25.4	5.9
	L	32.7	24.8	28.8	46.7	5.0
	Month	33.1	24.7	28.9	83.9	5.4
Sept.	E	31.7	24.3	28.0	33.8	3.8
	M	31.3	24.1	27.7	117.5	4.8
	L	31.6	25.0	28.3	23.5	5.0
	Month	31.5	24.5	28.0	174.8	4.5
Oct.	E	32.0	24.8	28.4	122.3	4.8
	M	31.2	25.0	28.1	48.8	4.9
	L	30.6	24.2	27.4	25.9	4.1
	Month	31.2	24.7	28.0	197.0	4.6
Nov.	E	30.2	24.0	27.1	—	4.8
	M	27.2	19.5	23.3	—	4.7
	L	29.3	20.8	25.1	35.6	4.4
	Month	28.9	21.4	25.2	35.6	4.6
Dec.	E	27.4	17.6	22.5	—	4.7
	M	30.7	19.7	25.2	—	4.8
	L	31.9	21.8	26.9	16.0	4.4
	Month	30.1	19.8	25.0	16.0	4.6
Year		32.5	23.3	27.9	720.3	5.6

Climatic Data at Suphanburi Synoptic Station 1978

Std. Week	Period	Rain mm	Temp. °C Max.	Temp. °C Min.	Temp. °C Mean
1	1 Jan. — 7 Jan.	31.9	28.9	20.8	24.8
2	8 Jan. — 14 Jan.	—	32.0	20.8	26.4
3	15 Jan. — 21 Jan.	—	33.3	22.0	27.6
4	22 Jan. — 28 Jan.	—	33.3	19.6	26.4
5	29 Jan. — 4 Feb.	1.5	32.7	22.6	27.6
6	5 Feb. — 11 Feb.	—	34.8	22.4	28.6
7	12 Feb. — 18 Feb.	—	33.6	22.5	28.0
8	19 Feb. — 25 Feb.	10.1	31.7	21.4	26.5
9	26 Feb. — 4 Mar.	—	32.9	21.5	27.2
10	5 Mar. — 11 Mar.	—	37.5	23.7	30.6
11	12 Mar. — 18 Mar.	—	36.3	23.5	29.9
12	19 Mar. — 25 Mar.	—	37.4	24.8	31.1
13	26 Mar. — 1 Apr.	—	36.7	24.4	30.5
14	2 Apr. — 8 Apr.	—	36.9	24.9	30.9
15	9 Apr. — 15 Apr.	169.9	35.1	24.0	29.5
16	16 Apr. — 22 Apr.	2.7	36.1	24.3	30.2
17	23 Apr. — 29 Apr.	—	36.3	25.1	30.7
18	30 Apr. — 6 May	35.1	36.2	24.8	30.3
19	7 May — 13 May	54.5	35.1	24.8	29.9
20	14 May — 20 May	57.5	32.3	24.2	28.2
21	21 May — 27 May	51.0	34.6	24.7	29.6
22	28 May — 3 Jun.	10.2	33.5	24.2	28.8
23	4 Jun. — 10 Jun.	0.9	34.5	24.4	29.4
24	11 Jun. — 17 Jun.	2.2	28.8	23.7	26.2
25	18 Jun. — 24 Jun.	7.6	33.7	20.6	27.1
26	25 Jun. — 1 Jul.	0.9	24.2	25.4	24.8
27	2 Jul. — 8 Jul.	11.8	18.6	17.1	17.8
28	9 Jul. — 15 Jul.	37.6	32.7	21.0	26.8
29	16 Jul. — 22 Jul.	55.1	33.2	24.7	28.9
30	23 Jul. — 29 Jul.	69.6	33.3	25.2	29.2
31	30 Jul. — 5 Aug.	14.8	32.5	25.2	28.8
32	6 Aug. — 12 Aug.	9.9	31.2	24.3	27.7
33	13 Aug. — 19 Aug.	21.5	32.1	24.5	28.3
34	20 Aug. — 26 Aug.	3.5	32.9	24.4	28.6
35	27 Aug. — 2 Sep.	35.3	33.3	24.5	28.9
36	3 Sep. — 9 Sep.	33.5	34.0	24.2	29.1
37	10 Sep. — 16 Sep.	70.1	32.2	24.3	28.2
38	17 Sep. — 23 Sep.	197.1	30.9	23.9	27.4
39	24 Sep. — 30 Sep.	52.3	31.4	24.7	28.0
40	1 Oct. — 7 Oct.	114.4	31.0	24.5	27.7
41	8 Oct. — 14 Oct.	13.3	32.1	25.0	28.5
42	15 Oct. — 21 Oct.	7.0	30.9	24.4	27.6
43	22 Oct. — 28 Oct.	10.8	31.8	25.0	28.4
44	29 Oct. — 4 Nov.	1.0	27.9	20.6	24.2
45	5 Nov. — 11 Nov.	4.8	30.5	23.2	26.8
46	12 Nov. — 18 Nov.	—	30.7	23.0	26.8
47	19 Nov. — 25 Nov.	—	31.5	21.9	26.7
48	26 Nov. — 2 Dec.	—	30.2	20.3	25.2
49	3 Dec. — 9 Dec.	—	30.4	20.8	25.6
50	10 Dec. — 16 Dec.	—	29.7	19.4	24.5
51	17 Dec. — 23 Dec.	—	30.0	17.6	23.8
52	24 Dec. — 31 Dec.	—	27.7	18.0	5.7

Climatic Data at Suphanburi Synoptic Station 1979

Std. Week	Period	Rain mm	Temp. °C Max.	Temp. °C Min.	Temp. °C Mean
1	1 Jan. — 7 Jan.	0.0	32.8	20.3	26.6
2	8 Jan. — 14 Jan.	0.0	28.1	23.0	25.6
3	15 Jan. — 21 Jan.	0.0	33.2	22.2	27.7
4	22 Jan. — 28 Jan.	0.0	38.8	21.6	30.2
5	29 Jan. — 4 Feb.	0.0	33.8	21.9	27.9
6	5 Feb. — 11 Feb.	T	33.7	23.1	28.4
7	12 Feb. — 18 Feb.	0.0	34.8	23.0	28.9
8	19 Feb. — 25 Feb.	0.0	36.2	22.3	29.3
9	26 Feb. — 4 Mar.	0.0	35.6	23.3	29.5
10	5 Mar. — 11 Mar.	0.0	37.2	23.3	30.3
11	12 Mar. — 18 Mar.	0.0	37.4	23.1	30.3
12	19 Mar. — 25 Mar.	0.0	31.6	25.0	28.3
13	26 Mar. — 1 Apr.	0.0	37.2	21.9	29.6
14	2 Apr. — 8 Apr.	0.0	36.6	25.1	30.9
15	9 Apr. — 15 Apr.	3.4	35.4	25.4	30.4
16	16 Apr. — 22 Apr.	0.0	37.5	25.5	31.5
17	23 Apr. — 29 Apr.	7.3	30.8	26.0	28.4
18	30 Apr. — 6 May	T	36.7	26.2	31.4
19	7 May — 13 May	22.8	36.9	26.3	31.6
20	14 May — 20 May	42.5	35.6	26.1	30.9
21	21 May — 27 May	1.8	35.0	25.2	30.1
22	28 May — 3 Jun.	62.4	36.2	26.1	31.1
23	4 Jun. — 10 Jun.	18.9	33.8	25.3	29.6
24	11 Jun. — 17 Jun.	1.6	33.5	25.8	29.7
25	18 Jun. — 24 Jun.	26.4	33.9	25.7	29.8
26	25 Jun. — 1 Jul.	0.8	33.1	25.5	29.3
27	2 Jul. — 8 Jul.	5.9	33.0	25.0	29.0
28	9 Jul. — 15 Jul.	0.2	35.4	24.7	30.0
29	16 Jul. — 22 Jul.	39.9	36.1	24.7	30.4
30	23 Jul. — 29 Jul.	60.2	34.5	25.0	29.8
31	30 Jul. — 5 Aug.	43.3	32.6	24.4	28.5
32	6 Aug. — 12 Aug.	6.3	31.6	24.4	28.0
33	13 Aug. — 19 Aug.	3.5	33.7	24.8	29.2
34	20 Aug. — 26 Aug.	25.7	34.0	25.1	29.6
35	27 Aug. — 2 Sep.	28.2	34.1	24.6	29.3
36	3 Sep. — 9 Sep.	85.9	33.4	24.7	29.1
37	10 Sep. — 16 Sep.	3.4	33.8	25.5	29.7
38	17 Sep. — 23 Sep.	101.8	32.6	24.9	28.8
39	24 Sep. — 30 Sep.	103.5	30.6	24.6	27.6
40	1 Oct. — 7 Oct.	—	32.2	24.8	28.5
41	8 Oct. — 14 Oct.	0.0	31.1	22.9	27.0
42	15 Oct. — 21 Oct.	—	32.2	22.9	27.6
43	22 Oct. — 28 Oct.	9.8	32.0	23.9	28.0
44	29 Oct. — 4 Nov.	—	30.9	21.7	26.3
45	5 Nov. — 11 Nov.	0.0	31.7	21.1	26.4
46	12 Nov. — 18 Nov.	0.0	31.1	21.9	26.5
47	19 Nov. — 25 Nov.	0.0	24.7	17.0	20.9
48	26 Nov. — 2 Dec.	0.0	28.4	17.7	23.1
49	3 Dec. — 9 Dec.	0.0	30.8	19.8	25.3
50	10 Dec. — 16 Dec.	0.0	29.4	17.4	23.4
51	17 Dec. — 23 Dec.	0.0	31.0	20.3	25.7
52	24 Dec. — 31 Dec.	0.0	30.6	18.1	24.4

Climatic Data at Suphanburi Synoptic Station 1980

Std. Week	Period	Rain mm	Temp. °C Max.	Temp. °C Min.	Temp. °C Mean
1	1 Jan. — 7 Jan.	0.0	32.9	21.5	27.2
2	8 Jan. — 14 Jan.	0.0	31.9	18.0	25.0
3	15 Jan. — 21 Jan.	0.0	31.8	19.6	25.7
4	22 Jan. — 28 Jan.	0.0	33.0	18.1	25.6
5	29 Jan. — 4 Feb.	0.0	33.5	19.1	26.3
6	5 Feb. — 11 Feb.	T	33.1	22.0	27.6
7	12 Feb. — 18 Feb.	0.0	33.6	19.1	26.3
8	19 Feb. — 25 Feb.	0.0	35.0	23.4	29.2
9	26 Feb. — 4 Mar.	0.0	36.9	25.7	31.3
10	5 Mar. — 11 Mar.	0.0	38.2	22.0	30.1
11	12 Mar. — 18 Mar.	0.0	36.1	23.3	29.7
12	19 Mar. — 25 Mar.	0.9	36.6	25.3	31.0
13	26 Mar. — 1 Apr.	6.1	37.4	25.4	31.4
14	2 Apr. — 8 Apr.	0.0	37.4	24.4	30.9
15	9 Apr. — 15 Apr.	0.0	38.6	25.6	32.1
16	16 Apr. — 22 Apr.	0.8	38.2	24.8	31.5
17	23 Apr. — 29 Apr.	0.5	34.3	25.0	30.0
18	30 Apr. — 6 May	0.0	34.8	25.6	30.2
19	7 May — 13 May	3.6	39.5	25.4	32.4
20	14 May — 20 May	20.9	34.5	25.2	31.3
21	21 May — 27 May	0.7	33.8	25.2	29.5
22	28 May — 3 Jun.	15.3	36.8	24.7	30.8
23	4 Jun. — 10 Jun.	19.1	35.6	24.6	30.1
24	11 Jun. — 17 Jun.	43.2	34.0	24.6	29.3
25	18 Jun. — 24 Jun.	59.4	32.4	24.1	28.2
26	25 Jun. — 1 Jul.	6.9	32.7	24.0	28.3
27	2 Jul. — 8 Jul.	13.6	25.4	17.7	21.6
28	9 Jul. — 15 Jul.	1.4	9.6	—	4.8
29	16 Jul. — 22 Jul.	86.7	35.4	7.3	21.3
30	23 Jul. — 29 Jul.	39.3	32.5	25.3	28.9
31	30 Jul. — 5 Aug.	5.3	33.3	24.8	29.0
32	6 Aug. — 12 Aug.	16.2	34.8	25.0	29.9
33	13 Aug. — 19 Aug.	58.0	33.9	25.1	29.5
34	20 Aug. — 26 Aug.	4.1	31.6	25.2	28.4
35	27 Aug. — 2 Sep.	7.2	32.1	25.0	28.6
36	3 Sep. — 9 Sep.	32.8	32.3	25.0	28.7
37	10 Sep. — 16 Sep.	5.8	33.3	24.9	29.1
38	17 Sep. — 23 Sep.	76.3	32.4	25.1	29.0
39	24 Sep. — 30 Sep.	1.8	31.7	24.6	28.1
40	1 Oct. — 7 Oct.	162.5	26.3	24.6	25.4
41	8 Oct. — 14 Oct.	45.7	33.3	24.9	29.1
42	15 Oct. — 21 Oct.	25.5	36.0	25.1	30.6
43	22 Oct. — 28 Oct.	15.9	31.7	24.6	28.1
44	29 Oct. — 4 Nov.	T	26.3	24.6	25.4
45	5 Nov. — 11 Nov.	51.2	31.7	25.0	28.3
46	12 Nov. — 18 Nov.	1.0	31.8	24.8	28.3
47	19 Nov. — 25 Nov.	0.2	31.7	25.1	28.4
48	26 Nov. — 2 Dec.	0.0	29.8	27.2	28.5
49	3 Dec. — 9 Dec.	0.0	34.6	27.1	30.9
50	10 Dec. — 16 Dec.	0.0	30.5	16.1	23.3
51	17 Dec. — 23 Dec.	0.0	30.6	20.1	25.3
52	24 Dec. — 31 Dec.	0.0	30.1	17.0	23.6

Climatic Data at Suphanburi Synoptic Station 1981

		Rain	Temp. °C		
Std. Week	Period	mm	Max.	Min.	Mean
1	1 Jan. — 7 Jan.	0.0	17.6	17.9	17.8
2	8 Jan. — 14 Jan.	0.0	11.7	16.6	14.1
3	15 Jan. — 21 Jan.	0.0	30.1	14.2	22.2
4	22 Jan. — 28 Jan.	0.0	32.1	18.7	25.4
5	29 Jan. — 4 Feb.	0.0	33.6	21.9	27.8
6	5 Feb. — 11 Feb.	1.3	31.2	21.9	26.6
7	12 Feb. — 18 Feb.	0.0	34.6	15.7	25.2
8	19 Feb. — 25 Feb.	0.0	35.0	—	17.5
9	26 Feb. — 4 Mar.	5.0	34.9	10.0	22.5
10	5 Mar. — 11 Mar.	25.6	33.9	20.3	27.1
11	12 Mar. — 18 Mar.	0.0	35.7	24.1	29.9
12	19 Mar. — 25 Mar.	0.0	37.0	23.6	30.3
13	26 Mar. — 1 Apr.	0.0	36.3	24.1	30.2
14	2 Apr. — 8 Apr.	0.0	37.1	25.7	31.4
15	9 Apr. — 15 Apr.	4.0	35.2	23.9	29.6
16	16 Apr. — 22 Apr.	0.3	36.7	24.2	30.5
17	23 Apr. — 29 Apr.	1.8	37.1	25.3	31.2
18	30 Apr. — 6 May	37.8	34.8	23.9	29.4
19	7 May — 13 May	6.1	35.8	25.0	30.4
20	14 May — 20 May	26.8	34.9	25.0	29.9
21	21 May — 27 May	6.2	32.8	24.5	28.7
22	28 May — 3 Jun.	6.0	35.7	25.2	30.5
23	4 Jun. — 10 Jun.	4.1	32.1	24.2	28.2
24	11 Jun. — 17 Jun.	10.6	32.4	24.0	28.2
25	18 Jun. — 24 Jun.	35.4	32.5	24.2	28.4
26	25 Jun. — 1 Jul.	2.0	34.1	24.7	29.4
27	2 Jul. — 8 Jul.	9.1	32.1	24.9	28.5
28	9 Jul. — 15 Jul.	47.6	33.7	24.7	29.2
29	16 Jul. — 22 Jul.	69.5	33.6	24.9	29.3
30	23 Jul. — 29 Jul.	19.3	32.7	25.1	28.9
31	30 Jul. — 5 Aug.	30.1	31.9	24.7	28.3
32	6 Aug. — 12 Aug.	19.1	30.6	23.5	27.1
33	13 Aug. — 19 Aug.	9.7	28.4	23.7	26.1
34	20 Aug. — 26 Aug.	41.3	33.7	23.5	28.6
35	27 Aug. — 2 Sep.	41.4	33.4	24.7	29.1
36	3 Sep. — 9 Sep.	49.1	33.3	24.7	29.0
37	10 Sep. — 16 Sep.	20.3	32.7	24.4	28.6
38	17 Sep. — 23 Sep.	88.1	26.8	24.5	25.7
39	24 Sep. — 30 Sep.	6.7	33.1	25.2	29.2
40	1 Oct. — 7 Oct.	14.1	32.6	24.8	28.7
41	8 Oct. — 14 Oct.	61.3	31.4	24.3	27.9
42	15 Oct. — 21 Oct.	4.4	31.5	25.0	28.3
43	22 Oct. — 28 Oct.	0.6	31.4	24.5	27.9
44	29 Oct. — 4 Nov.	22.4	31.1	24.9	28.0
45	5 Nov. — 11 Nov.	29.5	20.0	22.6	21.3
46	12 Nov. — 18 Nov.	28.7	29.6	23.6	26.6
47	19 Nov. — 25 Nov.	0.3	29.8	23.9	26.9
48	26 Nov. — 2 Dec.	0.0	28.6	21.5	25.1
49	3 Dec. — 9 Dec.	0.0	27.2	14.0	20.6
50	10 Dec. — 16 Dec.	0.0	28.7	20.7	24.7
51	17 Dec. — 23 Dec.	0.0	27.3	16.8	22.1
52	24 Dec. — 31 Dec.	0.0	25.4	18.9	22.1

Climatic Data at Suphanburi Synoptic Station 1982

Std. Week	Period	Rain mm	Temp. °C Max.	Min.	Mean
1	1 Jan. — 7 Jan.	0.0	31.0	19.8	25.4
2	8 Jan. — 14 Jan.	0.0	30.5	17.1	23.8
3	15 Jan. — 21 Jan.	0.0	30.7	17.0	23.9
4	22 Jan. — 28 Jan.	0.0	31.3	17.9	24.6
5	29 Jan. — 4 Feb.	0.0	27.8	19.6	23.7
6	5 Feb. — 11 Feb.	0.0	33.4	22.2	27.8
7	12 Feb. — 18 Feb.	0.0	32.8	19.6	26.2
8	19 Feb. — 25 Feb.	0.0	36.1	23.6	29.9
9	26 Feb. — 4 Mar.	0.0	34.6	24.3	29.5
10	5 Mar. — 11 Mar.	0.0	30.0	23.9	26.9
11	12 Mar. — 18 Mar.	0.0	35.4	23.9	29.7
12	19 Mar. — 25 Mar.	0.0	35.7	25.0	30.4
13	26 Mar. — 1 Apr.	11.2	33.2	24.3	28.8
14	2 Apr. — 8 Apr.	23.1	35.4	24.0	29.7
15	9 Apr. — 15 Apr.	56.6	33.5	24.3	28.9
16	16 Apr. — 22 Apr.	3.1	33.4	24.2	28.8
17	23 Apr. — 29 Apr.	0.0	36.4	25.7	31.1
18	30 Apr. — 6 May	0.0	36.6	25.5	31.1
19	7 May — 13 May	0.4	36.9	26.0	31.5
20	14 May — 20 May	26.4	33.3	25.5	29.4
21	21 May — 27 May	45.1	33.4	25.2	29.3
22	28 May — 3 Jun.	3.3	34.3	25.9	30.1
23	4 Jun. — 10 Jun.	99.3	32.9	25.7	29.3
24	11 Jun. — 17 Jun.	0.4	33.1	25.1	29.1
25	18 Jun. — 24 Jun.	4.5	33.8	24.9	29.4
26	25 Jun. — 1 Jul.	20.2	32.9	24.9	28.9
27	2 Jul. — 8 Jul.	3.8	33.9	24.7	29.3
28	9 Jul. — 15 Jul.	24.3	28.7	24.8	26.8
29	16 Jul. — 22 Jul.	61.8	33.7	24.7	29.2
30	23 Jul. — 29 Jul.	1.5	32.9	24.2	28.6
31	30 Jul. — 5 Aug.	29.2	32.5	24.9	28.7
32	6 Aug. — 12 Aug.	13.2	31.2	24.3	27.8
33	13 Aug. — 19 Aug.	8.6	32.0	24.5	28.3
34	20 Aug. — 26 Aug.	33.4	30.8	24.0	27.4
35	27 Aug. — 2 Sep.	41.4	33.3	24.6	28.9
36	3 Sep. — 9 Sep.	43.8	30.2	24.3	27.3
37	10 Sep. — 16 Sep.	51.4	32.3	24.2	28.3
38	17 Sep. — 23 Sep.	46.3	32.9	24.5	28.7
39	24 Sep. — 30 Sep.	9.0	31.9	24.4	28.2
40	1 Oct. — 7 Oct.	8.4	32.4	24.4	28.4
41	8 Oct. — 14 Oct.	66.2	31.9	24.2	28.1
42	15 Oct. — 21 Oct.	0.0	27.7	24.8	26.3
43	22 Oct. — 28 Oct.	77.9	31.5	24.9	28.2
44	29 Oct. — 4 Nov.	0.0	32.4	24.6	28.5
45	5 Nov. — 11 Nov.	0.0	31.7	23.8	27.8
46	12 Nov. — 18 Nov.	0.4	32.0	24.4	28.2
47	19 Nov. — 25 Nov.	1.1	31.8	23.5	27.7
48	26 Nov. — 2 Dec.	6.6	31.1	23.9	27.5
49	3 Dec. — 9 Dec.	0.0	31.1	21.8	26.5
50	10 Dec. — 16 Dec.	0.0	29.4	18.8	24.1
51	17 Dec. — 23 Dec.	0.0	26.0	14.4	20.2
52	24 Dec. — 31 Dec.	0.0	32.3	15.8	24.1