

soil, while lupine and crotalaria increase the count. Since there was some positive relationship between percent organic matter of the soil and nematode population, the populations in all likelihood contained many saprophitic nematodes. This may have concealed response to the type of cover crop as well as cash crop.

TABLE 25.—MONTHLY RAINFALL IN INCHES AT THE NORTH FLORIDA EXPERIMENT STATION.

Month	1947	1948	1949	1950	1951
January .....	6.16	5.05	1.89	0.66	1.59
February .....	3.31	1.02	4.90	1.21	1.63
March .....	6.08	13.58	5.47	5.44	10.28
April .....	9.17	14.25	7.60	5.29	2.06
May .....	7.80	2.35	1.54	5.19	8.02
June .....	5.89	4.71	6.76	6.41	3.88
July .....	4.96	11.24	8.03	5.76	4.18
August .....	4.89	6.63	9.36	4.69	4.84
September .....	5.00	6.27	1.35	2.81	3.54
October .....	3.68	3.33	4.98	1.54	1.69
November .....	12.26	4.60	1.93	0.39	6.65
December .....	5.56	4.41	3.78	3.47	7.76
Total .....	74.76	77.44	57.59	42.86	56.12

## SUMMARY AND CONCLUSIONS

Field plots in replicated randomized blocks were established on virgin soil consisting mostly of Norfolk loamy fine sand to determine the effect of various rotations and continuous crops, fertilizers, lime and green manure crops on yield of peanuts, corn and oats, and on the fertility of the soil.

Corn grown in rotation with green manure crops yielded significantly higher than continuous corn with native cover. Peanuts grown in rotation with corn and green manure crops yielded an average of about 100 to 200 pounds per acre more than continuous peanuts.

In 1952 continuous lupine following peanuts yielded 2,220 pounds per acre of green weight, compared to 8,371 pounds for lupine grown once in a three-year rotation. Diseases common to both peanuts and lupine, such as *Rhizoctonia* spp. and *Sclerotium rolfsii* Sacc., made it appear desirable to grow lupine following peanuts not oftener than once in three years.

Corn, peanuts, crotalaria, oats and lupine showed a response to fertilizer. After four years there was a buildup of residual