

upper zone of a laterite profile had an organic matter content 2.5 times that of an upper black soil zone.

The dark colour of two surface soils of black soil is thus probably due to the association of organic matter with a clay having a high $\text{SiO}_2/\text{R}_2\text{O}_3$ ratio and a Ca and Mg silicate complex which gives a darker colour to an already grey soil and in the case of the laterite soil the presence of organic matter gives a darker shade to a red soil.

Absorption of soil moisture during germination of cotton seed. By T. V. Ranga-swami, B. Sc., Ag. Germination plays an important role in economic crop production. Quantity of soil moisture present at the time of and subsequent to sowing is one of the chief causes that affect germination. The control of moisture during germination is of paramount importance in cotton. "This done, out-of-season growth also may prove successful within certain limits."

The present note deals with absorption of soil moisture during germination by different varieties of cotton seeds. It was found that the rate of absorption depends upon the moisture saturation in the soil and also on the nature of the seed (whether acid treated or normal). Varietal variations were also noticed. In the absorption, two phases, viz. a mechanical or prewelling process followed by physiological absorption were observed. Invariably a 'lull period' existed between the two phases of absorption. The growth of the radicle was closely associated with higher absorption of moisture. Response to this metabolic activity was greater under lower saturations than under higher saturations. In some cases higher saturations of moisture were found to be not utilized and in others they were even harmful for normal activity. Incidentally it was also demonstrated that water enters the embryo through the seed coat besides through the micropyle during germination.

College News and Notes.

Students' Club. "Students should take an active part in politics" was the subject of an interesting debate which took place on 11-11-'37 with the Principal in the chair. Messrs. K. Mahabala Shetty and V. Srinivasan were the mover and the opposer respectively. After a discussion in which many students took part the motion was put to vote and carried by a majority.

Cricket. The students of the Agricultural College had a fixture with the officers on 31-10-'37. Contrary to the popular expectation, the students gained a smashing victory. The officers put on a modest total of 117 runs, the principal contributor being C. Ramaswami (75). Dinker Rao and Kothandaraman on the students' side captured 4 wickets each for the loss of 20 and 28 runs respectively. The students replied with 159 for 5, Kothandaraman having retired with his 60 and Mukundan remaining unbeaten with his 55.

The Inter-collegiate tournament began well with the Agricultural College meeting the local—Government College on the 13th November, ending in brilliant victory for the former. The Agricultural College batted first and declared at 202 for the loss of 8 wickets. K. K. R. Menon was brilliant with his 45 closely followed by Kothandaraman with his 37. Rama Iyengar was unbeaten with his 35 runs. P. S. Srinivasan claimed 5 wickets for 68 runs. The Government College was then dismissed for a paltry 72 runs, the distinguishing batsman being K. Subramaniam who scored 38 runs. Dinker Rao was very successful with the ball, taking 5 wickets at the cost of 20 runs. Kothandaraman followed him by claiming 4 wickets for 27 runs.

14—11—37 saw a brighter cricket. The Trichy Railway Institute played with the Agricultural College. The visitors, batting first, sent up 155 on the board for all out. Sundaram Chetty was the hero of the day with his bat and he was unbeaten with his polished 52 runs. He exhibited some powerful and fine strokes. The other principal scorers were George (27) and Timmins (26). Timmins began well and hit up an excellent, straight six but he was unfortunately dismissed soon. The bowling credit goes to Dinker Rao who broke down 4 wickets for 45. The Agricultural College, batting next, declared at 158 for 3. Shiva Rao played a steady game and quickly scored 69 runs. Next to him came C. N. Babu and Kothandaraman with 43 and 16 respectively. As C. Ramaswami was run out very early, the visitors were deprived of a chance of seeing the test player's polished and brilliant batting.

Hockey. In the semi-final round of the Coimbatore Hockey Tournament, played on 27—10—37 on the Forest College Grounds, the Stanes High School defeated the Agricultural College by 1 goal to nil after an exciting contest.

Both the sides put up a strong fight. The winners combined well and scored their only goal just five minutes before the full time. The college players put up a good defence. K. K. R. Menon, the college goalie, saved a number of goals and but for him, the college would have fared worse.

The Victoria College, Palghat, played with the Agricultural College on the 7th inst. in connection with the Inter-collegiate tournament. The latter won the match by 6 goals to 1.

Having come out victoriously in the first match of the Inter-collegiate tournament the Agricultural College met the local Government College on the 15th instant. The match ended in a draw.

Visitors. The Honourable V. I. Munuswami Pillai, Minister for Agriculture and Development, visited the Central Farm, the College Dairy and some sections of the Agricultural Research Institute on the 30th of last month, along with Mr. N. S. Varadachari, Parliamentary Secretary.

Mr. N. S. Apte, Director of Agriculture, Gwalior, visited the Institute on 22—10—37.

Mr. A. G. Beattie, Senior Agricultural Officer, Nigeria, arrived here on the 16th from Hosur. He visited the various Breeding Stations and the Research Institute during his stay here of about a week.

Academic Council. For one vacancy in the Council, consequent on the resignation of Mr. K. Raghavachari, Mr. H. Shiva Rao was elected.

M. Sc. Degree. We are glad to note that Mr. P. Abraham of the Cotton Section has been awarded the M. Sc. degree of the Madras University for his thesis on "*Studies on the anatomy of the cotton flower*".

RETIREMENT

Rao Bahadur N. S. Kulandaiswami Pillai, another "Saidapet Veteran" retired from service on the 9th of the month. Joining service as some of his predecessors had done in the Revenue Department he was like them deputed for training in the Saidapet Agricultural College. He served in the subordinate cadre as Farm Manager at Koilpatti and as a district work officer in the sixth circle till 1918 when he was promoted to the gazetted rank. He was confirmed as Dy. Director in 1931. Except for two breaks, one in connection with an enquiry

into the marketing possibilities of Tanjore rice in Ceylon and the other for the period he was acting as the Head quarters Dy. Director at Madras the whole of Mr. Pillai's service was spent in the V circle which comprises the districts of Trichinopoly and Tanjore, and the many improvements now in evidence in the agricultural practices of these two districts owe not a little to the indefatigable and persistent efforts and organising capacity of Mr. Pillai. In recognition of his good services the Government honoured him with the title of Rao Saheb in 1933 and that of Rao Bahadur recently. We wish him a long and happy retired life.

OBITUARY

It is with deep regret that we have to announce the death of B. Dasappa Malli on the 13th November at Coonoor where he was working as Agricultural Demonstrator.

Young in years and full of promise as a very capable propaganda officer it was a shock to us to hear of his untimely demise. We offer our sincere condolences to his relatives in their bereavement.

Weather Review—OCTOBER 1937.

RAINFALL DATA

Division	Station	Actual for month	Departure from normal @	Total since January 1st	Division	Station	Actual for month	Departure from normal @	Total since January 1st
Circars	Gopalpore	7.1	-0.9	41.4	South	Negapatam	11.6	+1.1	26.0
	Calingapatam	8.2	+0.2	29.7		Aduthurai *	8.6	+0.8	22.1
	Vizagapatam	9.2	+2.1	28.9		Madura	1.6	-6.2	14.9
	Anakapalli *	8.8	+1.1	40.0		Pamban	9.8	+0.8	25.3
	Samalkota *	8.4	-0.8	35.9		Koilpatti *	4.2	+8.1	15.6
	Maruteru *	10.4	+2.8	33.8		Palamkottah	7.8	+1.0	16.3
	Cocanada	10.3	+2.4	40.2	West Coast	Trivandrum	12.8	+2.2	52.5
	Masulipatam	10.0	+1.9	33.7		Cochin	16.2	+3.0	118.6
Ceded Dists.	Guntur *	9.8	+4.1	32.3		Calicut	11.2	+1.0	121.7
	Kurnool	4.4	+0.9	22.1		Pattambi *	17.4	+5.2	86.7
	Nandyal *	3.7	+0.5	28.4		Taliparamba *	...	...	...
	Hagari *	2.4	-1.1	15.7		Kasargode *	13.8	+3.0	167.3
	Bellary	4.0	+0.1	15.0		Nileshwar *	9.3	0.0	150.1
	Anantapur	11.2	+7.5	30.9		Mangalore	9.3	-1.8	141.5
	Rentachintala	...	...	...	Mysore and Coorg	Chitaldrug	2.3	-1.9	17.4
	Cuddapah	7.0	+2.0	21.3		Bangalore	3.7	-2.2	29.2
Carnatic	Anantharajupet *	11.6	+9.7	29.5		Mysore	11.5	+5.2	37.9
	Nellore	11.1	+2.7	48.5		Mercara	8.4	0.0	115.7
	Madras	10.4	-1.3	29.5	Hills	Kodaikanal	12.9	-3.2	54.5
	Palur *	8.4	-2.0	21.3		Coonoor	11.0	...	46.9
	Tindivanam *	11.9	+2.7	28.7		Ootacamund *	8.4	+1.9	48.5
	Cuddalore	11.7	+0.7	22.8		Nanjanad *	7.9	+0.5	43.9
Central	Vellore	8.9	+2.6	33.3					
	Salem	4.7	-2.0	24.4					
	Hosur *	3.3	+0.7	25.7					
	Coimbatore	5.1	-1.3	17.7					
	Coimbatore								
	A. C. & R. I. *	3.5	-2.2	15.9					
	Trichinopoly	7.5	+0.6	32.8					

* Meteorological Stations of the Madras Agricultural Department.

@ From average rainfall for the month calculated upto 1935 published in Fort St. George Gazette.

The Bay depression which formed in the Southwest Bay of Bengal off Cuddalore, after moving westwards merged into the unsettled conditions off Malabar Kanara Coast, caused a cyclonic storm in the Arabian Sea centred near latitude 16°N, longitude 71°E on 4th. The storm later moved as a low pressure wave and induced a shallow depression over the North Deccan and got filled up on 7th near Pendra. On 12th, a trough of low pressure extended over the Bay of Bengal from off the Coromandel Coast to off the Arakan Coast, enclosing a small depression at each end of trough. The two depressions within the trough later coalesced together and developed into a cyclonic storm on 13th, which moved in the North-Easterly direction, causing widespread heavy rain in Bengal and Assam.

Thundery weather prevailed in the second and fourth week in certain portions of the Bay of Bengal and in parts of the Arabian Sea and the Andaman Sea.

The setting of the North-East Monsoon was recorded at the end of the third week. But the monsoon became fairly active in the South-West Bay and the

South of the Peninsula and caused fairly wide-spread rain in the southern half of the Peninsula, on 30th and 31st.

Thunder showers were very common throughout the Peninsula, during the last three weeks of the month and had, scattered and widespread thundershowers, in Malabar, Kanara, Mysore, and Madras.

Rainfall was generally in excess all over the Presidency and most markedly so in the Deccan Districts.

Chief falls reported were :—

Negapatam	4 4" on 31st.
Cuddalore	5 8" „ 1st.
Kodaikanal	3 5" „ „
Pamban	3 8" „ „
Trivandrum	4 8" „ „
Maruteru	3 9" „ „
Anantharajupet	3 8" „ „
Tindivanam	6 6" „ „
Kasargode	4 3" „ „
Ootacamund	4 0" „ „

Special Reports of Heavy Rainfall.

Vanoor	7 6" }	On 1st October.
Panruti	6 3" }	
Villupuram	5 7" }	
Tindivanam	5 0" }	
Ulundurpet	5 0" }	

Weather Report for the Research Institute Observatory :

Report No. 10/37.

Absolute maximum in shade	91°F
Absolute minimum in shade	65°F
Mean maximum in shade	86.9°F
Departure from normal	-0.9°F
Mean minimum in shade	70.6°F
Departure from normal	+0.4°F
Total rainfall	3.47"
Departure from normal	-2.28"
Heaviest fall in 24 hours	1.05" recorded on 28th.
Total No of rainy days	8 days.
Mean daily wind velocity	1.0 M. P. H.
Mean Humidity at 8 hours	77.4%
Departure from normal	-1.5%

Summary. The mean maximum and minimum were almost normal. The mean Humidity was in defect by 1.5%. Rains occurred mostly during the first and fourth weeks of this month and the heaviest fall of 1.05" was recorded on 28th. Rainfall was in large defect.

P. V. R. & P. G.

Departmental Notifications.

Transfers.

Name of officer.	From	To
Mr. B. P. Papayya	A. A. D. Tadepalligudem	A. A. D. Chintalapudi (New Sub-circle).
„ T. S. Dakshinamurthi	A. D. Guntakal	A. D. Adoni.
„ C. Annamalai	A. D. Palmanier	F. M. Kalahasti.
„ K. B. Vydeswara Iyer	F. M. Kalahasti	A. D. Chengam.
„ N. V. Kalyanasundaram	A. D. Chengam	A. D. Palmanier.
„ M. Ratnavelu	A. D. Gingee	A. D. Tiruchengode.
„ K. M. Venkatachalam Pillai	A. D. Tiruchengode	A. D. Gingee.
„ T. Natarajan	F. M. A. R. S. Samalkota	Asst. L. A. Coimbatore.
„ M. C. Menon	F. M. Taliparamba	A. D. Calicut.
„ M. P. Sankaran Nambiar	A. D. Calicut	A. D. Tellicherry.
„ P. A. Narayana Nambiar	A. D. on leave	A. R. S. Taliparamba.
„ K. Krishnamurthi	F. M. Anakapalli	A. D. Parvatipur.
„ K. Suryanarayana	A. A. D. Parvatipur	A. A. D. Salur (New Sub-circle).
„ V. Suryanarayana	Asst. L. A. Coimbatore	A. D. Tadepalligudem.
„ T. G. Anantarama Iyer	F. M. Hosur	C. F. Coimbatore.
„ M. K. Swaminatha Iyer	F. M. C. F. Coimbatore	VI circle, Madura.

Leave.

Name of officer.	Period of leave.
Mr. V. Suryanarayana, A. L. A. Coimbatore	L. a. p. for 1 month from 23—10—37.
„ K. Sivasankara Menon, A. D. Perintalmanna	„ for 1 month from 3—11—37.
„ K. S. Ramanna Rai, A. D. Mudabidri	„ for 2 months from 12—10—37.
„ M. C. Krishnaswami Sarma, A. D. Dindigul	„ for 2 months from 5—11—37.
„ K. P. Anantanarayanan, Asst., Entomology-section	„ for 1 month from 3—11—37.
„ T. K. Mukundan, A. D. Wallajah	„ for 2 months from 20—11—37.
„ C. S. Krishnaswami, Asst., Mycology section	Extension of 1 a. p. for one month & 13 days from 11—11—37.
„ D. Panakala Rao, A. D. Nandigama	L. a. p. for 1 month and 2 days from 22—11—37.
„ P. S. Narayanaswami, Physiological Scheme, Cotton section	L. a. p. for 1 month from 8—11—37.
„ M. Ratnavelu, A. A. D. Gingee	Extension of 1 a. p. on m. c. for 2 months from 9—10—37.