

Discussion. If R_1 and R_2 are the duplicate factors controlling rice colour, T. 206 will be $R_1R_1R_2R_2$ and T. 322 $r_1r_1r_2r_2$; the F_2 should give 15:1 ratio of red to white. Of the 15 reds in F_2 , 7 will be pure red in F_3 due to the presence of both or either R_1 and R_2 , 4 will give 15:1 ratio of red to white due to both R_1R_2 being heterozygous in them, and 4 will give 3:1 ratio of red to white due to only one of the factors R_1 or R_2 being heterozygous. The F_3 behaviour of 516 families based on the above assumption comes to:—

	Number of families actually obtained.	Number of families expected.
Pure for red rice	209	226
Pure for white rice	30	32
Segregating families on 15:1 and 3:1 ratios	277	258

($X^2 = 2.8$ and P lies between .30 and .20)

Thus the F_3 behaviour confirms the F_2 results.

According to the chromosome theory the duplicate factors for red rice must be present in separate chromosomes and the occurrence of duplicate factors for the production of a particular character, may with certain reservations be taken as an indication of the polyploid nature of rice.

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ECONOMIC SURVEY OF A SOUTH INDIAN VILLAGE—PERUMANALLUR

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Preliminary. Situated eight miles north of Tirupur on the crossing of the metalled roads from Tirupur to Kunathoor and Avanasi to Erode is Perumanallur, a Ryotwari village in the Palladam Taluk of the Coimbatore District. It consists of the hamlets of Pidarampalayam, Valasupalayam, Athikadu, Perumanallur and Purasupalayam. The nearest Railway Station is Kulipalayam, $4\frac{1}{2}$ miles from the village reached by an *iteri*. The village is situated in the plains and there are no jungles or hills in the vicinity, but a small stream which is occasionally flooded for an hour or two in the rainy season runs close by. There are four small ponds (known as *Kuttais*) in the whole village each about 3 feet deep which is full only during the rainy season and the water seldom used for irrigation. The village appears to be a very ancient one.

Population. The population of the whole revenue village during the last four census is given in the following table :

Year.	No. of inhabited houses.	Population			Religion			Population per 100 acres of		Increase in % of women over men.
		Males	Females	Total.	Hindus	Muh's.	Xians.	cultivated land.	occupied land.	
1901	277	631	685	1316	1309	7	—	67	65	8.5 %
1911	294	671	736	1407	1396	11	—	70	71	9.6 %
1921	329	792	813	1605	1558	—	47	79	81	2.7 %
1931	318	757	752	1509	1486	6	17	75	76	0.7 %

It may be observed from the above that there was a marked increase in population till 1921, but a marked decrease in the next decade. This is due to the emigration of the people to places like Tirupur and Coimbatore which are rapidly expanding as commercial cotton centres. Another reason is that almost all the Adi-dravidas have been converted to Christianity and they have emigrated to a settlement nearby.

The castes and the number of families in each are detailed below:-

Goundars	205	Oil Mongers	2
Mudaliars	31	Pandarams	4
Brahmins	9	Potters	4
Chetties	2	Masons	20
Barbers	3	Uppiliars	3
Washermen	3	Chukkiliars	18
Valian	4	Banglar	1
Toddy Tappers	14	Nair	1
		Adi-Dravida Christians	9
		Total...	333

The average number of men, women, and children in a few families is tabulated below.

Caste.	Average of No. of families examined.	Adults.		Children.	
		Male.	Female.	Male.	Female.
Mudaliar	13	2.1	2.6	1.3	.7
Brahmins	9	2.2	2.8	1.3	1.6
Goundars	10	2.0	1.7	1.2	0.2
Masons	6	2.3	4.1	2.1	1.8
Chakkili	6	2.1	3.5	1.0	1.7
Oil Mongers	2	2.0	1.0	0.5	0
Valians	2	2	3.5	2.5	1
Washermen	3	2.6	2.0	2.0	0.6
Adi Dravidas	9	0.9	1.1	0.1	0

Land. The area of land available for cultivation is 1864.4 acres and of this 621.97 acres are irrigated by wells. The rest are rainfed

dry-land. There are no wet-lands in the village. The following table gives the extent of occupied land in acres.

			' Fasli 1335'	' Fasli 1340'
Occupied Government assessed land	...	...	1786.51	1788.41
nam dry-land ...	...	...	70.16	70.16
Unoccupied Government assessed land	...	...	10.68	5.47
Total available for cultivation	...	...	1867.00	1664.00
Common Waste	...	...	20.57	20.97

There are no common pastures in the village. The number of wells (the only source of irrigation) and the area irrigated are as follows:--

Fasli year.	Number of wells.	Area irrigated in 1st crop.	Area irrigated in 2nd crop.
		acres.	acres.
1335	91	483.61	156.30
1339	94	534.48	292.74
1344	96	621.97	300.80

The number of wells and the area irrigated by them is gradually increasing and this indicates that intensive cultivation is being carried on.

The total land assessment of the village is Rs. 2044-7-0 and the classification of land according to assessment in the year of settlement is as follows:--

Pattas paying.	Extent in acres.	Assessment.
Rs. 1/- and less	4.29	Rs. 5-13-0
Over 1 Re. and below Rs. 10	535.41	582-12-0
Rs. 10 to Rs. 30	589.11	708-10-0
Rs. 30 to Rs. 50	262.55	293-9-0
Rs. 50 to Rs. 100	117.13	145-15-0
Rs. 100 to Rs. 250	263.76	302-12-0
Over Rs. 250		
	1772.25	2044-7-0

Occupation of Land. Of the total area cultivated, 370 acres of garden land and 873 acres of dry-land are cultivated by land-owners and these are divided among 85 land-owners. 120 acres of garden-land and 195 acres of dry-land are sublet and cultivated by 16 tenants. There are 6 tenants who own no land. The rest, in addition to their small farm, take up additional land on lease.

There are 11 land-lords who cultivate a portion of their farm themselves and lease out the remaining lands. The period of tenure varies from one to three years and there are different systems of tenure.

Generally the rent is fixed in terms of money or in Cambodia cotton kapas. The tenant meets all the cultivation expenses and takes for himself all the produce except the kapas which he pays to the land-lord, the area under Cambodia cottons and other crops being previously fixed up. In the second system the land-lord takes his tenant as his working-partner; they share labour and other expenses equally, and the produce is divided equally, after the land-lord deducting a fixed amount of cotton kapas as the rent for the land.

A slight modification of this system is also in vogue. The land-lord contributes one or two pairs of work bullocks towards labour of the farm and the produce is divided in proportion to the land-lord's contribution after deducting the rent of the land in terms of cotton kapas.

The land assessment is always paid by the land owner.

There is a class of ryots called *Moopans* who combine agriculture with toddy tapping as a side industry. They take on contract coconut trees in the various holdings, for tapping at Rs. 5 per tree for 6 months. Trees are tapped only for 6 months in the year.

The total kist of the village is Rs. 2044-7-0.

The following statement exhibits the assessment on occupied land of the village for different soils.

The land assessment on occupied lands for fasli 1319 was Rs. 1863-7-0: by resettlement it has been Rs. 2044-7-0, an increase of Rs. 181-0-0.

Description of soil.	Rate per acre.	Area.	Assessment.
Best red loam	1-11-0	65-3	110-0-0
Good red loam	1-2-0	638-39	718-10-0
Best red sand	1-6-0	536-71	738-6-0
Good red sand	1-2-0	68-72	77-8-0
Ordinary red sand	0-13-0	421-18	342-2-0
Best red sand	1-6-0	42-22	58-8-0
Total...		1772-25	2044-7-0

Agriculture. The following table illustrates the area of the various crops in the village for five years.

Fasli year.	CEREALS				PULSES				Coconut.	Palmyra.	COTTONS				
	Paddy.	Ragi.	Cholam.	Total of all cereals.	Horse gram.	Dew gram.	Total of all pulses.	Condi-ments.			Karun-gani (irri.)	Karun-gani (Dry).	Cam-bodia (irri)	Cam-bodia (Dry).	Total
1335	—	78.73	559.54	855.44	204.9	49.40	254.65	0.7	0.4	1.38	2.75	3.0	273.32	12.77	291
1338	0.10	9.56	501.31	806.41	335.93	156.5	494.18	0.76	0.4	1.76	—	7.90	362.66	37.20	407
1341	22.25	145.8	312.98	515.70	176.82	124.5	302.67	2.9	0.35	1.41	—	—	360.66	4.50	365
1343	50.35	179.4	389.42	636.87	225.76	261.60	494.7	0.58	0.49	2.4	—	—	397.11	2.00	399
1344	20.80	175.20	336.41	575.10	181.19	236.51	422.90	1.47	0.12	1.84	—	—	385.95	3.5	389

The important garden land crops raised are Ragi, Cholam and Cambodia cotton. A small percentage of the area is under garden-land paddy.

During the two monsoons, the village receives a rainfall of about 20 inches. Ragi nursery is raised during the last week of May. The seed rate is 3 madras measures per acre and the nursery seedlings are transplanted when they are about 25 days old in the prepared land ploughed 3 or 4 times. After one or two hoeings, the crop is irrigated once a week. The crop matures in about 3½ months. About 1800 lbs. of grain and 2600 lbs. of straw are obtained. Ragi receives heavy manuring. The usual rate is about 150 cart loads of earth and farm yard manure mixed roughly in the proportion of 3:1 and preserved for about 3 or 4 months. Village earth is carted during the off season.

Cambodia cotton follows ragi. There is no elaborate preparatory cultivation for there is no interval between the harvest of ragi and the sowing of cotton. Cambodia cotton seeds are sown broadcast at about 25 lbs. per acre, covered with country plough, and subsequently beds are formed with *mamoty*. The land is irrigated once a week. About two hoeings are given in the first month. Picking of cotton begins in the first week of March and lasts till the middle of May. The acre yield of Cambodia cotton is 1000 lbs. of kapas.

The residual effect of the manure for ragi seems to last for cotton also. Hence no manure is applied for cotton. In very fertile lands a third crop is also raised.

Cholam is grown in the two seasons. Paddy is sometimes grown in the garden-lands. This checks the growth of weeds and increases the fertility of the soil as a lot of green leaves are applied to paddy.

Horse-gram and Dew-gram are sown in the dry-lands in the second week of October, and when they mature in the end of December, cattle are allowed to graze for about two months till the middle of February. Gingelly is raised as a second crop in the second week of May.

The economic unit of tenancy seems to be about 6 acres, of garden land with about 12 acres of dry-land attached to it. The former is commanded by a well fitted with 3 single mhotes and the farmer keeps 3 pairs of work bullocks, 1 cow, 1 buffalo and 2 calves. Of the 6 acres, 4 acres is occupied by ragi, (followed by Cambodia Cotton) and 2 acres by cholam. About 15 cents is set apart for vegetables, chillies and plantains. A dry land more or less equal in area is attached to each garden, in which is raised dry land crops. Fodder cholam crop is always sown in small areas for daily requirements of cattle.

The one and the only important implement used is the country plough. Because of its cheapness and simplicity, it is used for ploughing, covering seeds, forming beds and for many inter-cultural operations. There are two types of country ploughs,—the heavier,

weighing about 42 lbs. has a share 29" long and 1" broad. The beam measures 7'-6" from centre of yoke. This type is used exclusively in garden land ploughing. The lighter ploughs used in dry lands, weigh about 26 lbs., with shares 15" long and 1" broad, the length of pole from centre of yoke being 5'-9".

A garden land farm of 6 acres with about 10 acres dry land has the following implements:—

Dry land wooden ploughs	2 in use and 1 spare.
Garden land wooden ploughs	3 in use
Leather mhotes	3 & 1 (out of use.)
Mhote ropes	3
Tail ropes	4
Mamooties	4
Crow-bars	3

The single mhote is the only water-lifting contrivance. Three large holdings each about 30 acres are irrigated by pumps worked with oil engines of 13 H. P., 16 H. P. and 18 H. P. capacity.

The following table illustrates the number of work bullocks and other stock used in agriculture in the village for a series of years:—

Stock.	(Fasli Years.)		
	1334	1339	1342
Bullocks and bulls	417	391	396
Cows	181	186	213
Calves	160	184	248
She-buffaloes	37	39	60
He-buffaloes	...	2	...
Sheep	788	1131	1220
Goats	479	239	348
Carts	123	139	122
Ploughs (wooden)	199	171	263
Iron ploughs	...	...	8

During busy seasons especially during the sowings in October, ploughs and pairs of work-bullocks with men are hired for ploughing. The customary wage for the man, 1 pair of work-bullocks and the plough ranges from Re. 1 to Re. 1/8 per day. Double bullock carts are hired out, if labour of the work-bullocks can be spared, for carrying cotton kapas to ginning factories during April and May at Re. 1/8 to Tirupur.

There are no pastures in the village. In all cropping schemes sufficient area is sown with fodder for cattle. Besides the grain crops which yield straw for cattle, about 1/5 of the area of the garden is grown with fodder cholam, purely for work bullocks and cows. For about 9 months in the year, the cattle are stall-fed with concentrates such as cotton seed, rice bran, groundnut cake, and with bulky fodder such as cholam, ragi or paddy straw. The usual ration is about 3 lbs. of cotton seed, 2 lbs. of rice bran, 1 lb. of groundnut cake and about 20 lbs. of dry straw. The cattle are fed with concentrates in the noon. In November, December and January, the animals are allowed to graze in the dew-gram fields in dry lands. Stall feeding is not common in these months.

Nearly 90% of the cattle dung produced is utilised as manure. It is stored in a pit or heaped in a corner of the field and is mixed with village earth and sweepings roughly in the proportion of 3 : 1. Village earth is carted at odd times when there is no work in the farm. It is stored for about 3½ months and applied to the field at the rate of about 80 cartloads per acre. Ragi alone is manured and the residual effect lasts for the succeeding crops. Cattle urine is not preserved carefully. It mixes with the animal feed refuse, which is put in the manure pit.

The other source of animal manure is sheep-penning. Sheep varying in number are owned by the ryot himself and they are penned in different portions of the field for various crops.

Green manures are rarely grown in the holding. Green leaves such as *margosa*, *Cassia auriculata* and *Calotropis gigantea* are collected from roadsides or from bunds and applied especially for paddy. The usual rate of application is about 600 lbs. per acre. Usually there are no serious pests of crops here. But this year there has been an attack of plant lice on cotton and departmental help was sought for combating it. The cotton stem-borer and the boll-worms were checked by the rigorous application of the Pest Act. There was an outbreak of Black Quarter among cattle and veterinary help was sought. The ryots are much impressed by the improved departmental strains of cotton seed.

The ryots do not breed their own cattle, but always buy them from the weekly markets of Perundurai, Avanashi, Tirupur and Kunnathur and in the annual cattle fair at Tirupur. Generally the Kangayam breed is preferred to others but the Alambadies are not uncommon. The price per pair of work bullocks is about Rs. 200. The animals are sold to *Chukkli*s for slaughter when they grow old. They fetch about Rs. 10 per head.

Village. The area of the village site is 209 acres. The Brahmin quarters are situated in the centre of the village, surrounded on one side by *Mudaliars* and on the other side by *Goundars* and *Masons*. The depressed castes live far from the rest and in each hamlet there is a separate corner for them, known as *Chukkli* or *Para Valavu*. There are no terraced houses in the village and the houses are either roofed with country or Mangalore tiles or thatched with palmyra leaves. The dwellings of the depressed castes are all thatched, and there are about 100 such huts, most of which are now empty. 218 houses are tiled. Each garden has a dwelling where either the farmer or a permanent labourer lives. A farmer having 12 acres of garden land has it scattered in 3 places each 3 furlongs apart. Another ryot who has 60 acres has it divided in 4 places. This is more specially the case in dry-lands where a farmer having 70 acres has it divided in 8 places each several miles apart. There is no attempt at consolidating of holdings.

Next to agriculture, the other important industry of the place is weaving. This is followed only by the Mudaliars and once there were 40 looms in the village. But due to economic causes, the industry is deteriorating and at present only 4 looms are working. The weavers do not buy their yarn, but deposit Rs. 5 to yarn merchants and on this pledge, cotton yarn equal to this amount is given to them. This is woven and the cloth is taken by the yarn merchant and the wages for weaving are paid to the weavers. Cheap sarees alone are woven now and the condition of the craft is far from satisfactory. The wages of a weaver is six annas for every 8 yards of saree woven. Usually cotton yarn of forty or thirty counts is used. An adult member can weave in a working day of 10 hours one saree 8 yards long and this fetches him 6 annas. Six such sarees are woven in a week, Saturday being a day of rest. The following table shows the members of a weaver's family and the income and expenses of an average family:—

	adults.	children.
Number of members in the family	6	4
Number of adults who weave—males	2	
Number of women who help in weaving	3	
(Occasionally the women folk prepare and sell rice cakes)		

Income.		Expenses.	
500 sarees woven in a year fetches a wage of	Rs. 190	Articles of food	Rs. 160
Miscellaneous income	Rs. 50	Clothing	Rs. 40
		Interest on value of house	Rs. 10
		Interest on value of loom	Rs. } 5
		Depreciation on loom	}
		Ceremonial expenses	50
		Other expenses	Rs. 5
Total Rs.	240	Total Rs.	270

Recently a Ginning Factory has been started by three partners with a capital of about Rs. 9000/-. It provides labour for nearly 50 men and women coolies a day, their wages ranging from 2½ to 3 annas a day.

Economic Conditions of the Agriculturists. The following is the family budget of a land-lord having 10 acres of garden land and 12 acres of dry-land:

Income		Expenses	
Ragi	Rs. 200	Food	Rs. 300
Cholam	Rs. 200	Clothing	Rs. 100
Paddy	Rs. 150	Ceremonial functions as marriages, deaths, etc.	Rs. 200
Other grains	Rs. 50	Travelling	Rs. 100
Cambodia cotton	Rs. 1000	Barbers, dobies etc. paid in kind	Rs. 25
		Expenditure in farming	Rs. 900
			Rs. 1425
		Interest on borrowed amount	Rs. 200
Total Rs.	1600	Total Rs.	1625

This gentleman has borrowed about Rs. 3000/- for the marriage of his son, to clear inherited encumbrances, for litigation and for the improvement of his land.

The budget of the weaver clearly indicates the condition of the craft. He is able to meet his expenses by borrowing from his village chit fund.

There are three kinds of agricultural labourers in the village. The permanent labourers attached to the farm who are mainly Goundars, Madharis or Chukkiliars doing such operations as stitching mhote buckets, sandals and helping in agricultural operations, and thirdly casual labourers the majority being women.

The permanent labourers are about 160 in number and they are paid in kind ranging from 8 to 26 *vallams* of grain according to their age and efficiency. They are paid in ragi or cholam.

The Madharis are advanced Rs. 10 free of interest when they join the farm, and given 8 *vallams* of cholam or ragi per month and a *mamool* of 8 *vallams* per *pothi* of crop produced. When they leave the the farm they must return the advance. Casual labour is engaged whenever necessary for weeding, hoeing, harvesting of paddy and ragi, picking cotton kapas. The majority of them are women. They are paid in kind about 1 *vallam* for the harvest of crops as paddy, ragi or cholam and for picking kapas they are paid 2½ annas per head. Men casual labourers get 4 annas. Permanent labourers join or quit the farm once in a year, viz., in the month of Thai (during Pongal). Besides the above, the farmer gets the help of the village artisans, who are given in kind a *mamool* of 8 *vallams* during the harvest of grain crops.

The staple food of the people is rice and ragi. The labourers always take ragi and rice is considered to be a luxury. The better class of people take rice.

The following is the average price of the various staple food grains.

Food	Retail price	Wholesale price
Paddy	4 <i>vallams</i> per rupee	Rs. 22/- per <i>pothi</i> of 96 <i>vallams</i>
Ragi	5½ <i>vallams</i> per rupee.	Rs. 18/- per <i>pothi</i> of 96 <i>vallams</i>

Within recent years, no family in the village has made any saving. This is due to slump in the market of agricultural commodities and the frequency of bad seasons. They have spent away their cash and have pledged their jewels. In times of prosperity, the savings are utilised in buying new lands. Industrial enterprise and banking habits have not been cultivated; nor have they confidence in lending money for interest. Almost all the ryots are involved in debt. They borrow to clear their inherited encumbrance, to meet the cultivation expenses or for ceremonial functions such as marriages, ear-boring ceremonies, etc. Loans are taken either from the rich ryots or from the local Co-operative Credit Society.

Village Trade: The weekly market held every Saturday in the village is the main place where the villagers buy and sell their commodities and to a small extent it is carried to the neighbouring *shandies*—Avanasi or Kunnathoor. Nearness of Tirupur facilitates the selling of their cotton kapas. Marketing is made easy by the first class trunk roads leading to important commercial centres. About 60% of the agricultural produce is sold in the village itself and only 40% goes out of the village. The ryots do not sell their produce immediately after harvest. After meeting their wants, the excess only is sold. Cotton is mainly sold through the Tirupur Co-operative Trading Society of which most of them are members.

There are two Rural Co-operative Credit societies, one at Perumanallur and the other at Purasapalayam. The former was started in 1917 and has at present 42 members on the roll. The paid-up share capital is Rs. 814, and the value of each share is Rs. 10/—. Short term loans alone are given and the maximum period for clearing a loan is 5 years. The amount outstanding on loan is Rs. 3721 of which Rs. 1093 has not been repaid since 1925. The interest is charged @ 1½ pies per rupee per mensem. The interest that could not be recovered on account of the bad debt of Rs. 1093 is Rs. 1500. Apart from the bad debts and interest, the other members repay their loans regularly. The society has its own Panchayat of five members with its honorary President and Secretary. The society at Purasapalayam was started in 1929 and has at present on rolls 34 members. The amount outstanding on loan is Rs. 1326 and interest Rs. 260. There are no bad debts in this society and members repay their loans regularly. Besides the above two credit societies, there is a Co-operative Seed Society at Perumanallur. It was started in 1928 and at present it is confining its activities to cotton seed alone and the Agricultural Demonstrator at Tirupur helps the president largely in carrying on the work satisfactorily. Departmental improved strains of cotton seeds are distributed to the ryots on loan and the produce is ginned together and sold on a co-operative basis by the Demonstrator on behalf of the society in a favourable market and the money is distributed to the ryots after recovering the value of seeds distributed and other loans incurred. This society has at present on the roll 99 members and the paid-up share capital is Rs. 1255 and the outstanding loan is Rs. 1590. Besides the borrowings from the above credit societies, the ryots have borrowed Rs. 7000 under the Agricultural Loans Act and Land Improvement Act of which Rs. 2000 is on short term loan and Rs. 5000 on long term loan. Of this Rs. 900 have been repaid.

The only source of communal income for the village is the levy of fines by the village committee for certain offences. There is a committee for each community which prohibits its members from

committing certain offences as drinking, adultery, etc. Any violation of the rule is punished with a fine ranging from Re. 1-4-0 to Rs. 50 according to the degree of the offence. The Committee meet, with all the members of the community and the offender is tried. If found guilty, he is fined and unless the fine is paid there is a social boycott. Two years ago, about Rs. 50 was collected and the amount was spent in repairing a Mariamman temple and digging a well for it. After this, no such amount has been collected and certainly this is not due to the absence of crimes but due to the relaxation of the rules of the Panchayat which at present, is not functioning properly.

There are three large temples in the village and in two of them there is an annual car festival and fire-walking ceremony. The expenditure for this is estimated to be about Rs. 600. The temples are managed by the Religious Endowment Board with its local Devasthanam Committee and the expenditure of the temples is met by the Board. The temples have their own Inam lands.

The village, is free from infectious diseases such as plague, cholera and small pox, but many people suffer from various skin diseases. There is a local allopathic dispensary where medical aid is available and nearly 60% of the sufferers seek medical aid. The rest either suffer or resort to quacks. There is about 40% of infantile mortality which is highest in the Adidraida quarters.

There are no private latrines attached to the houses, with the result that open fields and roadsides are used as latrines. A fortnight back two latrines have been built by the Health Department, but advantage is not yet taken of this. Every house has a well for drinking water and water is drawn from it.

Education. There is a District Board Tamil School in the village teaching up to IV standard and managed by two teachers. It has on its rolls 40 boys and 8 girls. The following table illustrates the strength and the average age of pupils :—

Standard.	Strength.	Average age.
I	20	7
II	15	9
III	8	10
IV	5	12

About 2% of the adults can read and write Tamil and only two persons in the village are literate in English. There are 2 *purohits* (priests) who are versed in religious books. The few religious books of these *purohits* are the only collection of books in the whole village. Four boys have gone up for High School education to the neighbouring towns. The only gentleman who has received collegiate education has settled down on his land. Nobody from the village has gone to an Agricultural College. Most of the ryots who have learnt to read and write have forgotten the alphabets on account of their not being in touch with books.

Village Administration. The administration of the village is carried on by the Village establishment consisting of a Village Munsiff, a Karnam, two Thalayaris and two Vettis. The Thalayaris function as the Village Police as well. There is a Civil Panchayat court consisting of seven members which settles civil disputes up to Rs. 50. Besides, there is a local Post Office and the mails are carried by a runner. There is the usual contact of the villagers with higher authorities such as Tahsildar, Police Inspector and Agricultural Officers who often visit the place. Recently the place has become the scene of rife between two rival factions among Goundars. Major criminal and civil disputes are settled in the courts.

Economic deterioration seems to have set in and this is clearly indicated by the number of the ruined houses. The whole of *Paracheri* is vacant now, the inhabitants having migrated. With the improvement in the cotton market there is a possibility of sinking more wells in the lower slopes of the dry-lands and increasing the area under intensive cultivation, and with the increased growth of Cambodia cotton, there are possibilities for improving the industrial resources of this village.

Recent Changes in Horticultural Practices *

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In the course of his lecture Mr. Gandhi spoke at length on the propagation and the most modern cultural methods for fruit trees as practised in different fruit growing countries of the world. Regarding the propagation of woody dicotyledons, he said that while making a stem cutting the basal cut need not necessarily be close below a bud; but very often inter-nodal basal cuts give better results and the close-below-bud cut is only desirable in case of stems which already possess pre-formed root initials in or near the nodal region.

The present practice of layering end branches of large orchard trees by tongue, ring or bending methods as practised in India is wasteful. A ground nursery could be more advantageously established of young trees closely planted in rows and these could be bent flat on the ground. The young shoots arising from the horizontally laid main trunk and branches could be rooted by mounting earth around their bases after they have made a six inch growth. Plants that root with difficulty could be made to root by etiolating these layer shoots before they break from their buds. This is effected by excluding light from the buds during the earlier stages of their growth by means of covering them with a layer of soil. The young shoots thus develop in the dark and push their way through the soil above. Such shoots are etiolated at their base and develop a satisfactory root system. The rooted shoots could be annually removed in the propagating season except one or two vigorous shoots at the base of the trunk which could be again used to lay flat for producing next year's crop of rooted shoots. This method of etiolating layer shoots has been perfected and commercially adopted in England by the Fruit Research Station at East Malling.

* Abstract of the lecture delivered on October 12, 1934.

Nota. The lecturer just returned to India after two years' absence in Europe, United States of America, Dutch East Indies and the Far East.