

A note on the cultivation of maize for cobs

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Maize is primarily a grain crop grown extensively all over the world. In the Northern Circars, it is grown mainly as a fodder crop. Of late however, it is being cultivated for its green cobs, especially near towns. The local people have cultivated a taste for the green cobs and there is a steady, though limited, demand for the cobs in the market. The area devoted to the cob-crop is not negligible, being about 100 acres even about the neighbourhood of a small town like Anakapalli. After the removal of the cobs, the stalks are cut and fed to cattle. They are particularly valuable for the milch cattle. The maize cob-crop is cultivated in the Circars as follows.

Soil - Maize comes up well in almost all classes of soils, and particularly well in good loamy soils. It is also grown in clayey loams in wetlands that have supplemental irrigation facilities from wells, provided the soil is well drained.

Rotation Maize is grown in rotation with brinjals and *bhendai* in garden lands. It follows onions or *Pyrus* gingelly in wetlands. It is grown mixed with red gram in dry lands. Occasionally maize and brinjals are broadcasted together as a mixture. After the harvest of maize, the brinjals left behind are manured heavily. Sometimes sunhemp is broadcasted in the standing maize, when it is about six weeks old. After the harvest of maize, the sunhemp is ploughed in as green manure

Preparatory Cultivation Maize responds to good cultivation and manuring. A good tilth is secured by ploughing the land repeatedly—6 to 8 times—with a wooden plough. Well-rotted cattle manure is applied to the land at 15 cart-loads per acre and this is supplemented by penning 2,000 sheep. Ten cart-loads of wild indigo leaf are also applied in addition to cattle and sheep manure, when it is proposed to take a crop of brinjals after maize in garden lands.

Season The sowings are made from March onwards, under well irrigation. In dry lands, the sowings are done with the South-West monsoon showers in June. Sowings are done periodically, in batches, to facilitate the tender cobs being put in the market continuously from June to October. Maize is not raised during the cold weather, as the cob formation and filling are then defective.

Seed and Sowing Good sized and well filled cobs are left to mature on the plant. The cobs are harvested, dried in the sun and shelled. The seeds are stored in tins or mudpots, with a layer of ashes at the top. The mudpot is covered with a cloth and sealed with mud and cowdung plaster to prevent damage by pests of stored seed.

Broadcast sowing is the usual practice. The seed rate is 10 lb. to the acre. The cobs are not good sized, if a higher seedrate is adopted. The seeds are also dibbled in the plough furrows, sometimes. After the seeds are covered, beds 8 ft. × 8 ft. are formed with irrigation channels in between every two rows of beds. In mixed crop sowing, red gram is first broadcasted and maize is dibbled in the plough furrows, using 2 lb. of red gram seed and 8 lb. of maize to the acre. Red gram and maize are also sown in lines with *akkadi*, with one line of red gram for every three lines of maize.

Irrigation Early crops sown in March and April are given about five irrigations. Crops sown in June come up with three irrigations. In North Vizagapatam, where the South-west monsoon is heavy, dry crops of maize are raised.

After cultivation After the sprouts appear, the gaps are filled by dibbling and hand-watered. Weeding is done 20 days after sowing, when the crop is 6 to 8 inches high, followed by a hoeing and thinning, a week after. The third weeding is after another fortnight. Birds which damage the cobs, are scared by boys by tapping empty kerosene tins with small sticks. Night watch is provided, where the crop is subject to damage by jackals.

Harvest The duration of the crop is 100 to 120 days. Tender cobs begin to form from the sixth week after sowing and are ready in another two weeks. The tender cobs are relished by most of the people, but the labouring class prefers the mature cobs, as being more sustaining. As the crop is sown in batches one after the other, the harvest is done in stages, as the cobs get ready. The *ryots* arrange their sowings so that they may have 2 to 3 cents of the crop ready for the daily harvests during the season, and this is managed without any additional labour being engaged for the purpose. Each plant gives one cob, while a few bear two cobs and some are infructuous. The early crops give about 13,000 cobs from an acre and the main season crops give about 14,000 cobs. After the harvest of the cobs, the entire crop is cut and fed to cattle. 3,000 to 4,000 lb. of green feed is had from an acre.

Marketing The tender cobs become available from June onwards; the peak supplies are from July to September and there is a good demand for the green cobs in the local market. The *ryots* either sell the standing crop at Rs. 50 to Rs. 70 per acre or attend to the harvest and sell the green cobs to the dealers at Rs. 3—12—0 to Rs. 5—8—0 per thousand cobs. The cobs are retailed at 12 annas to a rupee per hundred, i. e., at Rs. 7—8—0 to Rs. 10 per thousand. The returns are disproportionately shared by the grower and the merchant, each receiving about 50% of the prices realised.

The roasted tender cobs is a common favourite with all classes of people. The cobs obtained from the dry crops are said to be better than the others. Though the cobs are tasty and appetising, they are not easily digested by people accustomed to a soft rice diet.

The Economics of cultivation The cost of cultivation and the profits that may be expected normally are given below :—

Items of cultivation	Early crop (April)			Late crop (June)			Dry Crop (June)		
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.
Preparatory cultivation ...	8	0	0	8	0	0	8	0	0
Manures and manuring ...	15	0	0	15	0	0	5	0	0*
Seeds and sowing ...	1	0	0	1	0	0	1	0	0
After cultivation ...	3	4	0	3	4	0	3	4	0
Irrigation ...	12	8	0	7	8	0			
Harvest ...	2	8	0	2	8	0	2	8	0
Assessment, scaring birds, etc. ...	2	12	0	2	12	0	2	4	0
Total cost of cultivation per acre	45	0	0	40	0	0	22	0	0
YIELD									
Marketable cobs per acre ...	13,000			14,000			10,000		
Value per thousand cobs ...	5	8	0	4	8	0	4	8	0
Total value of cobs ...	71	8	0	63	0	0	45	0	0
Fodder produced in lb. ...	3,500			4,000			3,000		
Value of fodder ...	5	4	0	6	0	0	4	8	0
Total receipts per acre ...	76	12	0	69	0	0	49	8	0
Net profit	31	12	0	29	0	0	27	8	0

* Sheep are penned in the dry lands and no cattle manure is applied normally.

Conclusion The area devoted to this crop by individual ryots ranges from 50 cents to $1\frac{1}{2}$ acres. Maize grown for cobs is a short duration remunerative crop, requiring only a small investment. Hence the cultivation of maize for the green cobs can be advantageously taken up in localities adjoining towns.

The Madras Agricultural Students' Union

Annual general body meeting 1943.

The annual general body meeting of the Madras Agricultural Students' Union was held on Friday 30th July 1943, at 6 P. M. in the Freeman Hall with Mr. N. L. Dutt, the Vice president, in the chair. Fifty four members including thirty two student members were present. The minutes of the previous general body meeting were read and adopted. The Secretary then read the report of the Managing Committee for the year 1942-43, which was adopted unanimously. The report of the auditors in respect of the accounts for the year 1942-43 and the draft budget for the year 1943-44 were then taken up for consideration. Proposed by Sri Rao Bahadur V. Ramanatha Ayyar and seconded by Sri C. S. Krishnaswami Ayyar (Mycology) it was resolved that the excess expenditure over the sanctioned budget estimates of last year incurred by the Committee may be ratified, in view of the abnormal conditions created by war. It was then suggested that this matter should form one of the subjects to be included in the Managing Committee report. As regards Rs. 100 tender deposit shown in the balance sheet, under funds and liabilities, the Committee were requested to refer the same to the auditors with the concerned voucher for necessary modification in the balance sheet. Sri Rao Bahadur V. Ramanatha Ayyar, proposed and Sri C. S. Krishnaswami Ayyar (Mycology) seconded, that the College Day and Sports be held during the year 1943-44 and a sum of Rs. 250 be provided under

expenditure for the same as against an estimated receipt of Rs. 200 by donations from members'. This was adopted by the general body with acclamation.

The President then announced that the Ramasastrulu Munagala prize was awarded to Sri P. A. Srinivasan, student B. Sc. Ag., III for his essay on "An Economic Survey of the Marketing of Tobacco at Palghat".

The election of office-bearers for the year 1943-44 was then proceeded with. The Vice-President announced the names of those who were elected to the offices of Vice-President, Editor and Secretary by ballot, as follows:—

Vice-President:—	Sri C. Ramaswami Nayudu.
Editor:—	Sri C. R. Srinivasa Ayyangar.
Secretary:—	Sri K. Ramaswami.

The following office bearers were then elected (duly proposed and seconded).
The council: Mofussil Vice-Presidents:—Sri R. Swami Rao, Sri M. Kantiraj, and Sri M. Anandan.

Mofussil members:—Sri M. Narasimham, Sri M. Royappa Pillai, Sri M. R. Balakrishnan and Sri M. Kalimuthu.

Resident members:—Dewan Bahadur Sir T. S. Venkatraman, Sri Rao Bahadur G. N. Rangaswami Ayyangar, Rao Sahib V. Muthuswami Ayyar, and Sri E. R. Chellam Vincent.

Managing Committee:—

Manager:—	Sri C. Balasubramaniam.
Treasurer:—	Sri C. S. Krishnaswami (Agricultural Section).

Other members:—Sri A. Mariakulandai, Sri M. M. Krishna Marar, Sri S. V. Duraiswami Ayyar and Janab Ibrahim Ali Sahib (Student).

Editorial Board:—Sri C. M. John, Sri V. T. Subbiah Mudaliar, Sri Rao Bahadur V. Ramanatha Ayyar and Sri P. A. Srinivasan (student).

After the vote of thanks proposed by Sri Rao Bahadur V. Ramanatha Ayyar to the retiring committee, the meeting terminated.

General body meeting of the resident members.

Sri C. R. Srinivasa Ayyangar and Sri K. Ramaswami, who were elected as Editor and Secretary respectively, at the last annual general body meeting expressed with regret their inability to accept the offices. A general body meeting of the resident members was therefore convened on 12th August with the Principal in the chair. Sri V. T. Subbiah Mudaliar and Sri N. Muthuswami Naidu were elected as Editor and Secretary respectively. In the vacancy caused by the election of V. T. Subbiah Mudaliar as Editor, Sri T. Nataraj was elected as a member of the Editorial Board.

Report of the Managing Committee of the Madras Agricultural Students' Union for the year 1942-43

The Managing Committee of the Union beg leave to present the following report of the activities of the Union for the period 1st June 1942 to 31st May 1943.

Membership The number of members on the roll on 31st May 1943 was 515 as against 512 in 1942 and 496 in 1941. Though there has been a slight increase in membership, a large number of officers of the department and ex-students of the college are still not members.

Office bearers The Principal Mr. P. V. Ramiah continued to be the ex-officio-President throughout except for a period of six weeks when he was appointed acting Director of Agriculture. During this period Mr. C. R. Srinivasa Ayyangar was the Principal and the President.

College Day and Conference for 1942 Owing to conditions created by war and the absence of deputation of district officers, it was decided to postpone the holding of the College Day and Conference for the year 1942, till circumstances are favourable for the holding of the same. The College Day Sports, however, were held on Saturday, 30th January 1943. The function was a great success and in four events new records were set up. Our thanks are due to Mrs. C. R. Srinivasa Ayyangar who very kindly gave away the prizes. Thanks are also due to Sri A. Mariakulandai and other members of the sports committee for their active co-operation in arranging and conducting the sports. As regards the College Day and Conference of 1943 we regret that it has once again not been possible to hold the same.

Managing committee meetings Eleven meetings of the Committee were held during the year.

Editorial Board meetings There were 14 meetings of the Board. Our thanks are due to Sri C. M. John, Editor and the members of the Board for the efficient conduct of the journal during difficult times.

The Madras Agricultural Journal Owing to increased cost of printing and the difficulty of obtaining paper of the requisite quality, the committee were constrained to reduce the number of pages of the journal to about 30 pages of reading matter with a view to restrict the cost of production within the limits of the sanctioned estimate. In addition, cheap cover paper was also introduced. We hope the journal will revert to its old standard as soon as conditions improve. The students' annual supplement was published along with the June issue. We wish to record here our appreciation of the co-operation and promptness of The Scholar Press, Palghat. We thank the Department of Information, New Delhi, for the supply of numerous blocks concerning war subjects and we dare say the publication of such pictures has enhanced the interest in the journal. We wish particularly to express our grateful thanks to the Government of Madras and the Director of Agriculture for the annual subsidy of Rs. 400 which has been very helpful under the present high cost of production of the journal.

Subscribers The number of subscribers to the journal, who are not members of the Union, at the end of the year was 230 as against 227 in 1942, and 211 in 1941.

Exchange and free list The list is being maintained and copies of the journal are being reserved for despatch overseas as soon as shipping conditions improve.

Ramazastrulu-Munagala Prize Two essays were received for this prize and the judges appointed in this connection recommended the award to Sri P. A. Srinivasan, student, class III who sent in the essay on "An Economic Survey of the Marketing of Tobacco at Palghat". We take this opportunity to congratulate the author of the essay and to record our thanks to the judges. It may be recorded that this is the first time that a student has been awarded the prize.

Extension to the Union building The total expenditure under improvement to building came to Rs. 897-11-0 as against Rs. 875 provided for in the budget, for the year under report. The increase is due to the high cost of timber etc. used for the making of racks and other equipment intended for the new hall. Our thanks are due to the previous Secretary Sri V. Gomathinayagam Pillai for the ungrudging services rendered by him in this connection.

Acknowledgement The committee record their grateful thanks to all members of the Union for their valuable cooperation and to the Presidents of the year Measrs. P. V. Ramiab and C. R. Srinivasa Ayyangar for their ready help and valuable advice at all times.