Yield in Kg/ha:

Location cultivars.	*Tholpuram*	*Keeri-malai*	*Chavakach-cheri.*	*Puthur*	*age (days)*
CO - 10	*3932.5*	*3474.0*	*3924.0*	*4167.8*	*90*
B.S.T.20	*3025.0*	*2156.3*	*1520.0*	*1846.8*	*70*
LOCAL	-	-	*1504.0*	*1545.0*	*120*

The yield data confirms the popularity of CO-10 among the farmers of the different localities in the Peninsula.

SOME OBSERVATIONS ON SHIFTING CULTIVATION IN THE MONERAGALA DISTRICT.

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The shifting cultivator, locally known as chena farmer does not use the same piece of land every year instead, he cuts down the trees of a small forest patch and burns as much of the woody growth as is possible or convenient. In the Moneragala District this is usually done in June-July drought period. Among the half burnt tree trunks, he plants his favourite crop maize just after the first rain in early August. He makes a hole with a stick, drops in a few seeds and covers the seeds with the soil, as the forest land is generally free from weeds and the soil is usually rich in humus and well supplied with ash, it produces a very good early growth.

First weeding is done just before the second rain in late September and with the commencement of the second rain he plants crops such as Kurakkan (Eleusine coracana), thanahal (Setaria italica), chillies (capsicum annum l.), cowpea (vigna unguiculata l.), mungbean (vigna radiata), luffa (luffa acutangula l.) brinjal (solanum melongena l), pumpkin (cucurbita pepo l.) etc. The harvest of these crops begins in December.

Maize cobs and few vegetables are ready for harvest in December. Cowpea and mungbean by early January, Kurakkan and thanahal by late January-early February. The chillies and improved and indigenous brinjal types usually perform poorly owing to other crops interfering with their growth. Second weeding and subsequent mulching in early February enhance the growth of chillies and brinjals. The first pick is green chillies, this commences in late February or early March. The following picks for dried chillies continue from April to May. Indigenous brinjal types are harvested from late April to July, pumpkin and watermelon are ready in May and indigenous "kekiri" cucumber in late May.

Occasionally manioc is planted just after the second weeding and harvested in October. Cotton and groundnut are planted during the same time in places where distinct dry spell is available for the success of these crops.

The following facts and reasons also have to be mentioned to understand why farmers adopt the above mentioned practices.

1. *Early planted maize grows tall and cowpeas, luffa, bittergourd etc. are allowed to climb on the maize.*

2. *Ages of the crops selected for mixed cropping are with the aim of obtaining produce over a period of 9 - 10 months.*

3. *Seeds of different crops are mixed in certain proportions to permit favourable growth of all the crops.*

4. *Varieties of chillies and brinjals selected by them have been of poor growers in the first four months permit other short age crops to flourish.*

5. *Cotton is always intercropped with groundnut. The indigenous creeping variety of groundnut is shade tolerant, controls weed, grows effectively by spreading over the ground. Unlike recommended improved varieties, the mature seeds of indigenous variety remain dormant for a period of 30-40 days when not harvested in time due to labour shortage.*

6. *More space is given between the hills of maize having 3-4 plants per hill to provide more room for intercropping without altering the crop density of maize.*

7. *The mixed cropping pattern is adopted to minimize the risk of adverse weather conditions. For example, heavy rainfall in the early stages spoils the cowpea crop but does not damage thanahal and kurakkan, while rainfall at the time of maturity is detrimental to thanahal and kurakkan but not to cowpea.*

8. *Farmers know how to preserve the produce by local means without causing much damage to the consumability and viability of the seeds. They store their staple crop like maize till the next crop harvest by traditional methods. By smoking the cobs along with the sheath or semiroasting the seeds before storage.*

9. *Surplus maize is always kept till the commencement of the next harvest as a security measure against future crop failure.*

10. *The work is more evenly spread over the year in this type of cultivation. This is an advantage where labour is scarce.*

All these factors clearly indicate that though "chena" farming is considered as a primitive type of agriculture, it is admirably adopted to the needs of subsistance farmers provided there is sufficient land available.

A sudden increase of population in the postwar period has resulted in large scale deforestation and the shortening of the fallow period to such a degree that the land is given insufficient time to recover its fertility. As a matter of fact, the practice of "chena" cultivation has altered the character of vegetation beyond recognition over wide areas. Instead of a dense rain-forest,we now find extensive open grass lands resulting from "chenaing" and occa: tional fire. The soil lies exposed and during the rainy season large quantities of topsoil are washed away, especially on slope lands.

This circumstance all over the country,where "chena" cultivation is practised, prompted the Government to do everything possible to stop the practice of "chenaing" in the country during the last 3 years and presently engaged in doing everything possible to bring about a more settled form of farming and to give them better opportunity to achieve a better standard of living. Converting "chenaing" into settled farming is a complex task. It is complex because the changes are composed of and influenced by interacting biological, climatic,social, cultural and economic factors. As an initial step, changing towards settled farming should be aimed at reducing the uncertainity of new "settled" farming rather than increasing the potential average production of particular crops. To the subsistance "chena" farmer, schooled by experience and taught by others, production level and continuous supply of produce under the adverse condition is more important than average production.

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