

Make Farming Profitable in Rayalaseema

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ABSTRACT

Performance of any economic activity is measured by certain economic indicators. In the agriculture benefit cost ratio is considered as an appropriate measure to evaluate crop production performance. Production cost details of paddy, groundnut, tomato crops are obtained from the farmers. These farmers adopted one or two of the above natural/organic production packages. One of the important accepted measures of soil fertility is soil organic carbon. Presently the soil organic carbon level is less than 0.5 percent in a very large area. Soil test result results in Anantapur District showed even lower at less than 0.2 per cent. In the Kuppam area of Chittoor District, the soil test results of around 4,500 samples clearly revealed that about 95 percent of the samples have less than 0.5 percent organic carbon.

I. INTRODUCTION

The present scenario of farming in Rayalaseema is associated with a few important setbacks. Basically the soil fertility has gone to low levels. One of the important accepted measures of soil fertility is soil organic carbon. Presently the soil organic carbon level is less than 0.5 percent in a very large area. Soil test result results in Anantapur District showed even lower at less than 0.2 per cent. In the Kuppam area of Chittoor District, the soil test results of around 4,500 samples clearly revealed that about 95 percent of the samples have less than 0.5 percent organic carbon. In order to make farming profitable, three important issues are briefly presented below:

Improvement of Soil Organic Carbon

Soil organic carbon levels so low that soils have become lifeless. Cultivation in such soils farming is not profitable. In Gosamrakshanashala under T T D application of fertilisers and pesticides was stopped in 2004. Due to exclusive use of farm yard manure the soil samples collected and analysed in 2014 showed an increase of soil organic carbon to 1.2 to

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2.6 percent. Under Zero Budget Natural Farming (Z B N F) 10 clusters are selected in each mandal of the Chittoor district.

Continuous application of jeevamrutam, the soil organic carbon levels increased to more than 2.0 percent. In a private farm near Bangalore, this level was increased to 3.2 percent from 0.4 percent with continuous organic farm practices.

Modern Crop Production Technologies

High yielding /Hybrid crop production technology was implemented from 1968 onwards. This was named as the Green Revolution strongly believed as responsible for achieving self-sufficiency in food grain production. The ill effects of the so-called green revolution surfaced after a half century of its adoption. Reduction in soil organic carbon was mainly responsible for the application of chemical fertilisers in high doses for fifty long years.

Modern or high yielding crop production technology is characterized by high costs and high risks. High costs are the outcome of the application of high doses of fertilizers, subsequent occurrence of good number of pests and diseases and their control by spraying insecticides and fungicides, control of weeds with the help of weedicides, increasing use of machinery due to decline of bullock population, growing wages of hired human labour due to changes in the attitudes of working family members, disappearing the custom of family labour exchange are the main reasons.

High risks are due to increasing and diseases mainly responsible from the use of high doses of nitrogenous fertilizers, changes in cropping pattern mainly dominance of mono crops, dwindling forest area. high variations in the crop productivity, higher aberrations in monsoons are few important contributing factors. However there are many more varying from time to time.

Minimum Support Price

Government of India established Agricultural Prices Commission which was later named as Commission of Agricultural Costs and Prices (C A C P) to recommend remunerative /minimum support prices to major crops. A Committee was constituted under the Chairmanship of Dr M S Swaminathan which submitted its report in 2006. This committee recommended to pay to the farmers 50 per cent more than the production costs incurred by the farmers. However this recommendation was never implemented either by the central or 29 state governments. Three main reasons were responsible and they are: (i) C A C P is only recommendatory but not mandatory. (ii) Consumers are considered as the most important vote bank by almost all political parties in the country. (iii) Farming community was never considered as a strong group to reckon. Almost all Presidents and Prime Ministers of India boast that they hail from the farming family and villages.

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Sri Narendra Modi, Prime Minister of India proudly announced on the Independence Day, August 15, 2017 that the farmers income will be doubled in five years by 2022 Already three years have passed. The farmers in the country strongly believe that their interests are never protected. They openly express that doubling farm income is not in the near future with the ongoing government policies and programmes.

Can the farmers come out of this pessimistic belief. Greater discussion at the national, regional and state level was held in various seminars, symposiums, workshops, conferences, etc. They informally came out to some major issues either to make farming profitable or double the farm income. They are presented here.

Increasing Soil Fertility

Quite a good number of farmers are successful in reaching soil organic carbon levels to around 1.5 to 2.0 per cent. Farmers who are in the group of the selected clusters in each district are successful in improving the soil organic carbon.

They sincerely adopted application of jeevamrutam either with dry or wet, cultivation of green manure crops, adoption of multiple crops with pulse crops capable of fixing atmospheric nitrogen in the soil, providing live or crop waste mulching to minimise or reduce exposure soil to the sun, which mainly contribute to maintain or improve soil fertility.

Increasing Soil Fertility

Quite a good number of farmers are successful in upgrading and maintaining soil organic carbon level at around 1.5 to 2.0 percent . Sri Krishna and his brother in Kurnool District, Sri Damodar Reddy in Nellore District, Sri. M.R.Prasad, Prakrutivanam in Chittoor District were successful in maintaining soil fertility for more than a decade. Zero Budget Natural Farming (Z B N F) in Andhra Pradesh was implemented in ten clusters in each mandal of each district surpassed organic carbon 2.0 percent level. in the fields of the farmers where the Z B N F was implemented. Documented information is available with the Soil Testing Laboratories of the respective districts. These farmers continuously adopted the techniques suggested under Z B N F and could maintain higher soil fertility. They were sincere in application of jeevamrutham either in wet or dry form, cultivation of green manure crops, preference to multiple crops in place of monocrop, practicing mulching either live or with organic wastes during non crop season especially during summer to minimise oxidation. These are some very important measures responsible for improving and maintaining soil fertility.

Cost Effective Crop Production Technologies

Those farmers who suffered continuous crop losses preferred to adopt the following low cost crop production technologies. These technologies were mostly developed by the individuals. They put up all their life time efforts and energies to help the farmers to

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overcome their miseries. Some of them are already popular. Some of them are gradually getting popular with the farming community in various states. They are presented below:

- Subash Palekar Natural Farming
- Chowhan Kyu Natural Farming
- Padmasri C V Reddy Soil Swapping Method
- Ramabanam of Sri Ramaiah
- Dabholkar Multiple Cropping
- Multiple Cropping in place of Monocrop
- Vedic Agriculture- Koutilya Krishnan
- Ayurvedic Agriculture
- Regenerative Agriculture
- Sustainable Agriculture- Ramanjaneyulu
- One Straw Revolution of Masanobu Fukuoka
- Narayana Reddy Organic Farming Methods
- Ramakrishnan Chemical Farming Methods
- S N Nagarajan Organic Agricultural Methods
- Bhaskar Save Horticultural Crop Cultivation
- Balakrishnan Microorganisms Functioning

Some farmers successfully adopted either one or a combination of any two above mentioned technologies. They could increase and maintain soil fertility levels. In addition they managed to reduce crop production costs. They were extremely happy with the high quality end crop products. After getting acquainted with the quality of organic products, consumers started travelling hundreds of kilometers for procuring high quality natural/organic crop products. Some estimates point out that the natural/organic crop product consumption is increasing by 10 percent annually.

Respected Prof Ranga Reddy garu,

Please bear with me. I am not comfortable at computers. There is a repetition in the last para of 1st page and the first para of the second page. The repetition needs to be edited. More sote entire paper has to be edited. I need your help please.

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Farmers Fix Price of their Products

A popular belief is that only industrialists fix prices of their products produced. After gaining popularity for natural/organic products, these farmers started fixing prices for the products produced by them. This has commenced from the year 2015 or even earlier. A few examples are indicated below:

- Prakrutivanam Sri M R Prasad (98401 68616), Madanapalli started fixing rice prices at Rs 60-80 per kg, Rs 90 for kg of jaggery, powdered jaggery at Rs 40 per 200 gm. He markets a good number of other products. He established retails in other towns of telugu states.
- Sri Damodar Reddy (93911 64219), Sri Ram Mohan Reddy (98667 60498) in Nellore commenced selling jeevamrutham rice at Rs. 60 per kg even much earlier prior to 2010.
- Sri Krishna and his brother Sri Vijay Raju (81848 46488) sell their jeevamrutham rice at Rs 60 per kg. They produce rice from around 80 acres by using machine transplanters, harvest combiners. They became popular in the entire district.
- Sri Anil, Nayanapalli village from Anantapur (81210 12331) sells one ton of pomegranate fruits wholesale at Rs 80,000 to one lakh in his farm only.
- Tirupati resident Smt.Sasikala (76599 27777) established a retail outlet She sells rice at Rs.60 per kg and many other products produced in their farm located at Punganur.
- Sri Yugandar Reddy (99089 79208), seetharampuram, Kurnool district disposes pomegranate fruits at Rs. 10,000 per quintal. produced in his 4 acres
- Sri. Prabhakar Naidu,(9989 50183) Panduranga varipalli near Tirupati sells organic Amrutapani banana variety at Rs. 40 per dozen.
- A large number of farmers as listed in C2F whatsapp group(65 8328 8268) are marketing their organic products at the prices fixed by them for a number of years.

Benefit Cost Ratios

Performance of any economic activity is measured by certain economic indicators. In the agriculture benefit cost ratio is considered as an appropriate measure to evaluate crop production performance. Production cost details of paddy, groundnut, tomato crops are obtained from the farmers. These farmers adopted one or two of the above natural/organic production packages.

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In paddy cultivation Sri Krishna and his brother obtained an income of Rs. 1,20,000 per acre by spending an amount of Rs.12,000 only by minimising costs by following the technique of Sri Subash Palekar Natural Farming i.e.,jeevamrutham which contributed to the improvement of soil fertility. Besides mechanisation in transplanting, harvesting and threshing reduced costs considerably. These two options reduced the costs to the extent of Rs. 13,000. His success in reducing costs and soil fertility improvement were mainly responsible for achieving the benefit cost ratio of 1:10. Many economists expressed great surprise over this success. This quantum of benefit even may not be possible in urban business activities also.

Sri Venkat Ramana in his tomato cultivation followed two techniques, i.e., Ramabanam and Palekar Jeevamrutham. These two packages have significantly contributed to the reduction in costs and stability in maintenance of yield levels compared to many tomato farmers around his field. The benefit cost ratio was 3.26. His family members participated in many tomato crop operations. The benefit cost ratio might have improved considerably if their labour costs are not included in the total costs.

Sri Suresh, a lawyer turned agriculturist spent higher costs on procuring organic inputs for groundnut cultivation. He travelled to his village near Tirupati to oversee all groundnut crop operations from sowing to stripping pods. In times of emergency, he transported labour from Tirupati to his field to complete timely operations. Even due to the use of organic inputs, he successfully maintained the yield levels compared to the neighbouring farmers. He was successful in obtaining the benefit cost ratio of 3.63.

All these farmers strongly believed in the natural/organic package of practices. They meticulously adopted those practices in having successful crop production. They have not spent their energies in getting the minimum support price for their crop produce. They could easily surpass the minimum support price as recommended by Dr M S Swaminathan Committee. Small and marginal farmers who constitute around 86 per cent of the total farmers in Andhra Pradesh with their family member participation in crop operations are gradually shifting to the cost reduction crop technologies.

II. CONCLUSION

As long as the farmers continue to rely on modern high yielding agricultural technology, doubling the farm income or achieving stable income is a myth except in polyhouse or greenhouse, production of horticultural crops with technology and subsidy support of the government. Large portion of small and marginal farmers constituting more than 86 percent of total farmers can successfully double their farm income and maintain sustainable or stable farm incomes on only two conditions. Firstly, they must adopt at least one or a combination of any of two mentioned natural/organic crop production technologies. It is high time to popularise these technologies and should bring them within the reach of the majority of farmers. The benefit cost ratios of the crops produced by the farmers who adopted the natural/organic crop production technologies. The process of conversion may

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appear slow. In future the farmers only survive and sustain only by following organic agriculture. Organic agriculture can alone contribute to low costs, higher incomes, quality and healthy products fore better healthyand happy living of not only the farmers but also the entire population of the nation.

III. Reference

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