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Perception and constraints of zero budget natural farming in Nellore district of Andhra Pradesh

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Abstract

Zero-Budget Natural Farming (ZBNF) is a holistic alternative to the present paradigm of high-cost chemical inputs-based agriculture. Government of Andhra Pradesh (GoAP), Department of Agriculture (DoA) implemented Andhra Pradesh 'Zero-Budget' Natural Farming (APZBNF) Programme, through Rythu Sadhikara Samstha (RySS) (corporation for farmers' empowerment). RySS is a not-for-profit organization established by GoAP. The programme has been initiated in 2015-16 with multiple objectives of enhancing farmers' welfare, consumer welfare and for the conservation of the environment. So in order to understand the Perception levels and Constraints of Zero Budget Natural Farming (ZBNF) the present study was undertaken in Nellore District. Data was collected from 30 ZBNF beneficiaries of Andhra Pradesh using structured interview schedule during the year 2019 January. The findings of study revealed that majority of the farmers had Medium level of Perception (53.34%), followed by both High (23.33%) and low level of Perception (23.33%) respectively. Among constraints, marketing is a major problem constituting 100 per cent followed by yields were decreased in the beginning 90 per cent, preparations of inputs were difficult 40 per cent and advises were not timely 13.33 per cent. The suggestion offered based on the study for overcoming the problems were marketing facilities should be provided and timely advises should be provide.

Keywords: ZBNF, perception, constraints, suggestions

Introduction

After witnessing the harmful effects of chemical farming newly introduced agriculture technique among farmers is Zero Budget Natural Farming (ZBNF) also know as Zero Budget Spiritual Farming (ZBSF). It has attained wide success in southern India; especially Karnataka where it was firstly evolved (Kumar N, 2012). Now it is spreading all over India, so rapidly and dynamically. The Govt. of Andhra Pradesh vision is to enhance short term and long term farmer's welfare, particularly small and marginal farmers, through climate change resilient, low cost Zero Budget Natural Farming (ZBNF). The Government of Andhra Pradesh through Rythu Sadhikara Samstha launched ZBNF scaling-out initiative on 2nd June 2018 by Hon'ble Chief Minister Mr. Chandrababu Naidu. The study investigated farmers' perception on Zero Budget Natural Farming (ZBNF) in Nellore District of Andhra Pradesh with the following objectives for over all assessing farmers' perception on ZBNF. Replacing fertilizers and pesticides with concoctions of locally available cow dung, cow urine, jaggery and pulse flour, ZBNF ensures perfect soil conditions for plant growth while ensuring protection against pests

Objectives

1. To study the Perception of the farmers on ZBNF.
2. To identify the constraints and offer the suggestions in ZBNF

Methodology

The study was conducted in Nellore District of Andhra Pradesh. Ex-Post facto research design was used in the study. Mainly Paddy clusters were been selected because Paddy is the major crop in Nellore district. Three divisions were selected based on more number of ZBNF farmers. From the selected divisions three mandals were selected based on farmers who are fully adopting ZBNF practices. From each mandal one cluster has been selected based on highest crop area occupied by the crop so total three clusters has been selected. From each cluster 10 farmers were selected randomly representing total sample size of 30 farmers. Data has been collected from the farmers through survey method using the interview schedule. Secondary data has been collected from ZBNF office. Data was analyzed using descriptive statistics tools like frequency, percentage, mean, standard deviation.

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Table 1: Secondary data subdivision wise

S. No	Name of the ADA Subdivision	Name of the Mandal	Name of the Cluster	Name of the Village
1	Nellore	Nellore	Amancherla	Amancherla Mannavarappadu Donthali Upputuru Mogallapalem
2	Kovur	Butchi	Sripurandarapuram	Sripurandarapuram Kattubadipalem Munulapudi Ramachandrapuram Vavveru
3	Kavali	Dagadarthi	Chennuru	Chennuru Katrayapadu Turimerla Dharmavaram Yalamanchipadu Choutaputhedu Pedaputhedu Tadakaluru

Source: data collected from ZBNF Office, Nellore

Results and Discussion

Perception of farmers on Zero Budget Natural Farming

From the study (Table 2) it is revealed that majority of the farmers regarding (93.33%) expresses that they agree to the feasibility of ZBNF in present farming system followed by 6.67 per cent of farmers were undecided. In case of preparation of inputs most of the farmers (60%) feel it was difficult followed by disagree (40%). With regard to availability of traditional varieties of seed majority of the farmers (56.67%) expressed that it was difficult followed by (33.33%) and undecided (10%) respectively. Majority of the farmers (83.33%) expressed that Weed management is difficult in ZBNF followed by undecided (16.67%). In case of Purchasing and maintaining traditional cows is difficult most of the farmers (93.33%) agree followed by disagree (6.67%). With respect to ZBNF gives sustainable yields majority of the farmers (90%) agree followed by undecided (10%). In case of ZBNF is complex to adopt majority of the farmers (90%) express undecided followed by agree (10%). While Adoption of ZBNF on large scale is possible most of the farmers (80%) undecided followed by agree (13.33%) and disagree (6.67%). In case of ZBNF gives more returns most of the farmers (65%) were undecided followed by Agree (25%) and

Disagree (10%). ZBNF is relatively advantageous over chemical farming most of the farmers (73.33%) were under undecided followed by Agree (26.67%). ZBNF reduces pest and diseases most of the farmers (90%) were under Agree followed by Undecided (10%). ZBNF facilitates natural enemies' population, ZBNF increases microorganisms and earthworms in the soil; Quality production is possible in ZBNF and Soil will be enriched with ZBNF and ZBNF reduces cost of cultivation to a greater extent 100 per cent of the farmers agree.

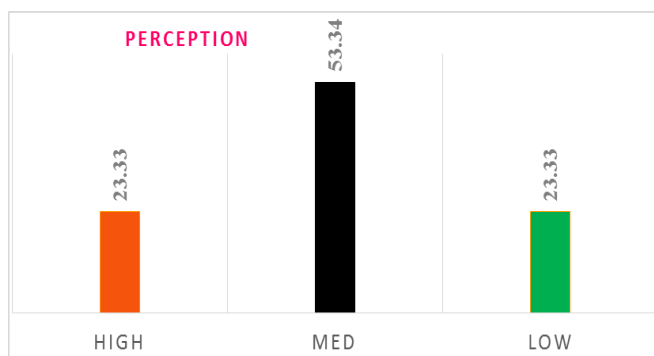
In the present study (Table 3 Fig.1) the overall perception levels of farmers on Zero Budget Natural Farming most of the farmers were having medium level (53.34%) of perception followed by both low and high level of perception (23.33%). This may be because of ZBNF gives sustainable yields (90%), ZBNF facilitates natural enemies population (100%), ZBNF increases microorganisms and earthworms in the soil (100%), Quality production is possible in ZBNF (100%), Soil will be enriched with ZBNF (100%), ZBNF reduces cost of cultivation to a greater extent (100%) and ZBNF reduces pest and diseases (90%). The study was in line with similar study conducted by [3].

Table 2: Perception of farmers on Zero Budget Natural Farming

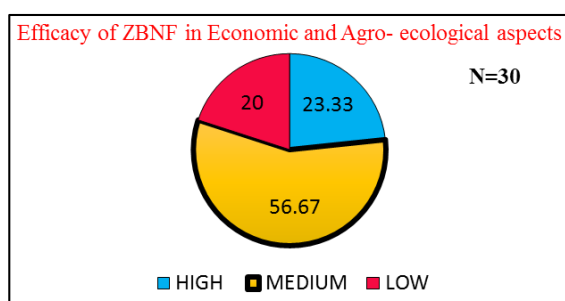
S. No	Statement	Disagree	Agree	Undecided
1	ZBNF is feasible to adopt in present farming system	-	93.33	6.67
2	Preparation of inputs is difficult	40.00	60.00	-
3	Availability of traditional varieties of seed is difficult	33.33	56.67	10.00
4	Weed management is difficult in ZBNF	83.33	-	16.67
5	Purchasing and maintaining traditional cows is difficult	6.67	93.33	-
6	ZBNF gives sustainable yields	-	90	10
7	ZBNF facilitates natural enemies population	-	100	-
8	ZBNF is complex to adopt	-	10	90
9	Adoption of ZBNF on large scale is possible	6.67	13.33	80
10	ZBNF increases microorganisms and earthworms in the soil	-	100	-
11	Quality production is possible in ZBNF	-	100	-
12	Soil will be enriched with ZBNF	-	100	-
13	ZBNF gives more returns	10	25	65
14	ZBNF reduces cost of cultivation to a greater extent	-	100	-
15	ZBNF is relatively advantageous over chemical farming	-	26.67	73.33
16	ZBNF reduces pest and diseases	-	90	10

Table 3: Overall Perception of farmers on Zero Budget Natural Farming

Category	Frequency	Percentage
Low (Mean - SD)	7	23.33
Medium (Mean +/- SD)	16	53.34
High (Mean + SD)	7	23.33
Mean= 54.26 SD=10.10		

**Fig 1:** Perception of farmers on Zero Budget Natural Farming**Table 4:** Efficacy of ZBNF in Economic and Agro- ecological aspects

S. No	Indicator	Increased	Decreased	No change	Total
1	Yield	13.33	86.67	-	100
2	Soil conservation	76.67	-	23.33	100
3	Water conservation	-	-	100	100
4	Pest attack	-	80.00	20.00	100
5	Disease attack	-	100	-	100
6	Quality of produce	93.33	-	6.67	100
7	Selling price	33.33	-	66.67	100
8	House hold consumption	100	-	-	100
9	Cost of cultivation	-	100	-	100
10	Income	100	-	-	100

**Fig 2:** Efficacy of farmers on Zero Budget Natural Farming**Problems and Suggestions expressed by ZBNF farmers**

From the table 5 it was observed that the major problem faced by majority (100%) of the farmers was marketing of their produce followed by yields were decreased in the initial years (90%), preparation of inputs (40%) and advises were not timely (13.33).

With regard to suggestions (Table: 6) expressed by majority (100%) of the farmers were to provide marketing facilities for selling their produce to remunerative prices and getting timely advises (45.5%) from the concerned persons from department of Agriculture.

Table 5: Problems expressed by ZBNF farmers

S. No	Problem	Percentage
1	Yields were decreased in the beginning	90
2	Marketing problem	100
3	Advised were not timely	13.33
4	Preparations are difficult	40.00

Efficacy of ZBNF in Economic and Agro- ecological aspects

From the study (Table 4) the sampled farmers reported that by adopting ZBNF noticed improvements in Soil Conservation increased (76.67%), Pest Attack decreased (80%), Disease attack decreased (100%) Quality of Produce increased (93.33%), House Hold Consumption (100%), Cost of cultivation decreased (100%) and income increased (100%) [1]. With regard to yield most of the sampled farmers (86.67%) expressed that there was decreased in the yields in the initial stages. Even if they experienced lower yields per crop, their net incomes were higher and more constant.

With regard to overall efficacy (Fig 2.) in case of Economic and Agro- ecological aspects most of the sampled farmers were under medium level of Efficacy (56.67%) followed by low Efficacy (23.33%) and high Efficacy (20%). This results may be due to increased Soil conservation (76.67%), decreased pest attack (80%), decreased disease attack (100%), increased Quality of produce (93.33%), House hold consumption increased (100%), Cost of cultivation decreased (100%) and income increased (100%).

Table 6: Suggestions of ZBNF farmers

S. No	Suggestion	Percentage
1	Marketing facilities should be provided	100
2	Giving them timely advises	45.5

Conclusions: Based on the finding of study it can be concluded that majority of the farmers had Medium level of Perception and Efficacy. Among constraints, marketing of their produce is a major problem. Major suggestion offered based on the study for overcoming the problems were marketing facilities should be provided and timely advises should be provide.

References

1. Khadse A, Rosset PM, Morales H, Ferguson BG. Taking Agro ecology to Scale: The Zero Budget Natural Farming Peasant Movement in Karnataka, India. The Journal of Peasant Studies. 2017; 45(1):128.
2. Kumar N, Subash Palekar's Zero Budget No till Rice Farming, 2012.
3. Sarada O, Kumar GVS. Perception of the Farmers on Zero Budget Natural Farming in Prakasam District Of Andhra Pradesh. 2017; 46(1):34-38.