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### Assessing the Training Needs of Village Agricultural Assistants (VAAs) and Village Horticulture Assistants (VHAs) in Visakhapatnam district

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#### Abstract

The present study was designed to assess the training needs of Village Agricultural Assistants in Visakhapatnam district of Andhra Pradesh. A total sample of 60 Village Agricultural Assistants and 60 Village Horticultural Assistants working in Rythu Bharosa Kendra's were taken for the study. The study revealed that majority of the VAAs opined that they need trainings in paddy for suitable paddy varieties for North Coastal Zone of A.P during Kharif, followed by management of over aged nursery in paddy and critical interventions for direct seeding of paddy with drum seeder & seed drill. For field crops they opined that they need training programme on critical management practices in rice fallow green gram & black gram for higher yields, followed by fall army worm management in maize and IPM practices for sucking pest management in green gram & black gram. The study also revealed that majority of the VHAs expressed that need training programme on drip & sprinkler irrigation technologies, followed by fertigation techniques for horticulture crops and grafting as well as propagation techniques in horticulture crops.

**Keywords:** Rythu Bharosa Kendra's, village agricultural assistants, village horticultural assistants and training need assessment

#### Introduction

The Indian economy heavily relies on agriculture, with a significant portion of the population depending on this sector for their livelihood. Despite impressive growth since 1947, the sustainability of agricultural progress in India remains uncertain, as agrarian challenges persist even amidst surpluses. A major contributing factor to agrarian distress is the inadequate public investment in rural areas and the agricultural sector over recent decades. However, the issues within the agriculture sector are not uniform across the country. Some agricultural policy analysts argue that state-directed policies in recent decades have exacerbated problems in dryland or rain-fed regions. India's evolving economic landscape necessitates the adoption of appropriate technology and agro-management practices to address various challenges, including ensuring food and nutritional security, meeting diversified market demands, seizing export opportunities, and addressing environmental concerns. These factors collectively present new challenges to technology dissemination systems (Anon., 2017) [2].

The Indian agricultural landscape faces numerous

challenges, including a high percentage of small landholdings, insufficient supply chain infrastructure, and extreme weather conditions. Beyond policy support and a functioning market, leveraging technology to understand and adapt to these complex challenges is crucial. In Andhra Pradesh, a predominantly agrarian state, 62 per cent of the population depends on agriculture for their livelihoods. The state covers 10.1 million hectares of cultivated land, constituting 37 per cent of its total geographical area, with 36 per cent of this cultivated area being irrigated. Farmers in Andhra Pradesh face significant issues related to input procurement, product selling, and accessing market information. Additionally, limited testing facilities for agricultural inputs such as seeds, fertilizers, and pesticides result in the supply of low-quality inputs, causing losses for farmers. In this context, establishing a platform at the village level is essential to enhance government services for agriculture and allied activities, provide advisory services to farmers, and effectively address their needs.

The Government of Andhra Pradesh designed a strategy to transform the agricultural and allied sectors. This strategy

focuses on increasing crop productivity with improved certified seeds, enhancing mechanization through custom hiring services, and improving extension services using modern ICT tools. Rythu Bharosa Kendras (RBKs), meaning Farmer Assurance Centers, were conceptualized based on the recommendations of the Swaminathan Commission and the Prime Minister's vision to increase farmers' incomes. This initiative aimed to decentralize agriculture and allied activities and bring the extension system closer to the farming community. The Government of Andhra Pradesh established Village Secretariats in all the Gram Panchayats in the state of Andhra Pradesh during 2019 (GoAP, 2019) [8]. In each Village Secretariat, an agricultural qualified staff by name Village Agricultural Assistant (VAA) or Village Horticultural Assistant (VHA) has been recruited based on major extent of agricultural or horticultural crops in the particular village. A total of 10,725 RBKs were established near Village Secretariats to provide government services, training, and capacity building for farmers on the latest agricultural technologies (Reddy, 2020) [13]. Of these, 622 RBKs were set up in Visakhapatnam district, with 281 falling under KVK, Kondempudi jurisdictional area (221 in 13 plain mandals and 60 in 7 tribal mandals). The newly recruited VAAs and VHAs were responsible for the extending all the agricultural and horticultural related technical services, extension activities, Government schemes and other programmed services to the farmers in the village in which they were positioned. The structured job chart was also given to VAAs and VHAs to work in the Village Secretariats (DoA, 2019) [6]. A considerable time has passed after the initiation of RBK services in this area and it is time to take stock of the situation, especially training needs of these crucial information sources of the farmers at the village level for effective delivery of extension services. So, keeping these aspects in view, a study entitled "Assessing the Training Needs of Village Agricultural Assistants (VAAs) and Village Horticulture Assistants (VHAs) in Visakhapatnam district" has been conducted. Training Needs Assessment refers to the organizational process of collecting and analyzing data for making decision on when and on what the trainings need to be conducted (Clarke, 2003) [5]. Training need assessment in the thematic areas like improved agricultural practices, programme development and other job-related areas will help the village level field staff to improve their job competencies (Kavitha *et al.*, 2017) [10]. Further, training needs assessment should be conducted on regular basis to identify the most suitable and needed training areas (Hemanga, 2014) [9]. In order to improve the technical, extension and job competency skills of the newly recruited village level staff, new training modules need to be designed and impart training to the newly recruited staff. Before proposing any training programmes and formulating training calendar, training need assessment need to be conducted to identify the various areas and aspects on which the newly recruited staff were expecting to train up based on their perceived field level knowledge, skills requirements and job-related aspects.

Keeping in view of this, the present study was conducted to identify training needs as perceived by VAAs and VHAs.

## Objective

To study the training needs of VAAs in Paddy, other major field crops and also training needs of VHAs in major Horticulture crops.

## Materials and Methods

The study was conducted during 2023 in KVK, Kondempudi jurisdictional area of Andhra Pradesh which consists 20 mandals with 221 RBKs. All the VAAs and VHAs who were working in 20 mandals were listed and among them a total of 60 VAAs and 60 VHAs were selected randomly. Based on the job chart and discussion with the staff, superior officers and extension specialists, training areas were identified under three categories viz., paddy, major field crops and horticultural crops for VAAs VHAs. Under each training area, various training aspects were listed. A semi structured schedule was prepared and pre tested in non-sample area. Frequency and percentage were calculated. Based on the response of the respondents' rankings were given.

## Results and Discussion

The table 1 focuses on the training needs of VAAs in paddy. It could be concluded from the table that majority of the respondents expressed that they need training on suitable Paddy varieties for North Coastal Zone of A.P during Kharif (93.33%), followed by management of over aged nursery in Paddy (91.67%), Direct seeding of paddy with drum seeder & seed drill – critical interventions (88.33%), critical interventions for healthy nursery management in paddy (86.66%), SRI in paddy for higher yields (85.00%), farm mechanization for cost effective management in Paddy (78.33%), fertilizer & bio fertilizer management in paddy in Visakhapatnam district (76.67%), IPM for major pests in paddy (73.33%), IPM for major diseases management in paddy (70.00%) and seed village concept & advantages (68.33%).

The table 2 revealed that majority of the respondents opined that they need trainings on critical management practices in rice fallow green gram & blackgram for higher yields (91.67%), followed by fall army worm management in maize (88.33%), IPM practices for sucking pest management in greengram & blackgram in Visakhapatnam district (85.00%), major diseases & management practices in greengram & blackgram in Visakhapatnam district (81.66%), major pest management practices in groundnut (80.00%), ICM practices for wilt management in redgram (78.33%), zero tillage maize & advantages (75.00%), fruit borer management in redgram with IPM practices (75.00%), bud necrosis & stem rot management practices in groundnut (75.00%), suitable high yielding varieties & varietal features of groundnut for Visakhapatnam district (66.66%), integrated nutrient management practices in groundnut (65.00%), suitable varieties & ICM practices in sesame (61.66%) and drone technology for cost affective agriculture (58.33%) in major field crops.

The study also unearthed from the table 3 that majority of the respondents opined that they need trainings on drip & sprinkler irrigation technologies in horticulture crops (90.00%), fertigation techniques for horticulture crops (86.66%), Grafting & propagation techniques in horticulture crops (85.00%), pruning & canopy management techniques

in mango & cashew orchards (81.66%), nutri gardens for promotion of whole family nutrition (78.33%), integrated crop management in mango (73.33%), intercropping in orchards for profitability (66.66%), Single node seeding technology for commercial horticulture crops (65.00%), ICM in papaya management (61.66%), INM in Cole crops (55.00%), satellite nursery management for self-

employment for rural youth (51.66%) and critical interventions in cucurbit crops (50.00%).

These findings are in line with Kharde *et al.* (2014) [12], Kehinde and Ayobami (2015) [11], Said and Gokul (2015) [14], Timothy (2015) [16], Al-Zahrani *et al.* (2017) [1], Babu (2017) [3] and Bhattacharjee and Saravanan (2018) [4].

**Table 1:** Training requirement of the respondents (VAAs) on paddy (N=60)

S. No	Training requirement on Subject/Topic	Frequency	Percentage	Rank
1	Suitable paddy varieties for North Coastal Zone of A.P during Kharif.	56	93.33	I
2	Critical interventions for healthy nursery management in paddy.	52	86.66	IV
3	Fertilizer & bio fertilizer management in paddy in Visakhapatnam district	46	76.67	VII
4	Management of over aged nursery in paddy.	55	91.67	II
5	SRI in paddy for higher yields	51	85.00	V
6	IPM for major pests in paddy.	44	73.33	VIII
7	IPM for major diseases management in paddy.	42	70.00	IX
8	Seed village concept & advantages.	41	68.33	X
9	Farm mechanization for cost effective management in Paddy.	47	78.33	VI
10	Direct seeding of paddy with drum seeder & seed drill – critical interventions.	53	88.33	III

**Table 2:** Training requirement of the respondents (VAAs) in major field crops (N=60)

S. No	Training requirement on Subject/Topic	Frequency	Percentage	Rank
1	Zero tillage maize & advantages.	45	75.00	VII
2	Fall Army worm management in maize	53	88.33	II
3	Suitable Ragi varieties for Visakhapatnam district	48	80.00	V
4	Fruit borer management in redgram with IPM practices.	45	75.00	VII
5	ICM practices for wilt management in redgram.	47	78.33	VI
6	Suitable varieties & ICM practices in greengram & blackgram in Visakhapatnam district	53	88.33	II
7	IPM practices for sucking pest management in greengram & blackgram in Visakhapatnam district	51	85.00	III
8	Major diseases & management practices in greengram & blackgram in Visakhapatnam district	49	81.66	IV
9	Critical management practices in rice fallow green gram & blackgram for higher yields.	55	91.67	I
10	Suitable high yielding varieties & Varietal features of Groundnut for Visakhapatnam district	40	66.66	VIII
11	Integrated nutrient management practices in groundnut.	39	65.00	IX
12	Major pest management practices in groundnut.	48	80.00	V
13	Bud necrosis & stem rot management practices in groundnut	45	75.00	VII
14	Suitable varieties & ICM practices in sesame.	37	61.66	X
15	Drone technology for cost affective agriculture.	35	58.33	XI

**Table 3:** Training requirement of the respondents (VHAs) (N=60)

S. No	Training requirement on Subject/Topic	Frequency	Percentage	Rank
1	Drip & sprinkler irrigation technologies in horticulture & profitability.	54	90.00	I
2	Fertigation techniques for horticulture crops.	52	86.66	II
3	Grafting & propagation techniques in horticulture crops	51	85.00	III
4	Shade net and green house technologies in horticulture crops.	41	68.33	VII
5	Tray seeding technologies for commercial horticulture crops.	47	78.33	V
6	Pruning & canopy management techniques in mango & cashew orchards.	49	81.66	IV
7	Intercropping in orchards for profitability.	40	66.66	VIII
8	Single node seeding technology for commercial horticulture crops.	39	65.00	IX
9	Integrated crop management in mango.	44	73.33	VI
10	Nutri gardens for promotion of whole family nutrition.	47	78.33	V
11	INM in Cole crops.	33	55.00	XI
12	Satellite nursery management for self-employment for rural youth.	31	51.66	XII
13	ICM in papaya management.	37	61.66	X
14	Multi-tier cropping system for Orchard crops.	47	78.33	V
15	Critical interventions in cucurbit crops.	30	50.00	XIII

## Conclusion

The study identified various training areas and specific aspects needed for field staff working at the village level. It also highlighted the crops cultivated in the area and the

perceived importance of training programs for Village Agricultural Assistants (VAAs) and Village Horticultural Assistants (VHAs). These findings will aid training institutions, such as State Agricultural Universities, Krishi

Vigyan Kendras (KVKs), District Resource Centres (DRCs), and District Agricultural Advisory and Transfer of Technology Centres (DAATTCs), in formulating training calendars and providing effective training to key agricultural resource persons at the village level.

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