



International Journal of Research in Agronomy

E-ISSN: 2618-0618
P-ISSN: 2618-060X
© Agronomy
NAAS Rating (2026): 5.20
www.agronomyjournals.com
2026; SP-9(8): 45-48
Received: 14-06-2026
Accepted: 24-07-2026

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Assessment of training needs and training preferences of agricultural officers in Kalaburagi district of Kalyana Karnataka region

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DOI: <https://www.doi.org/10.33545/2618060X.2026.v9.i8Sa.6186>

Abstract

Training plays a crucial role in enhancing the knowledge, skills and competencies of Agricultural Officers for effective delivery of agricultural extension services. The present study was conducted during 2021–22 in Kalaburagi district of Kalyana Karnataka region to assess the training needs and training preferences of Agricultural Officers. An ex-post facto research design was adopted and data were collected from 60 Agricultural Officers working in 27 Raitha Samparka Kendras (RSKs) using a pre-tested structured interview schedule. The findings revealed that a majority (53.33%) of the respondents had a medium level of training need, while 23.33 per cent each had low and high training needs. Regarding training preferences, most respondents preferred Krishi Vigyan Kendras (81.66%) as the training venue, followed by Agricultural Research Stations (75.00%). A 5-day training programme (85.00%) was the most preferred duration, while January–February (95.00%) emerged as the most preferred period for organizing training programmes. In contrast, July–August (100.00%) was the least preferred period. A majority preferred training programmes to be conducted half-yearly (73.33%). Most respondents preferred both practical and theory-oriented training (93.33%), followed by practical/skill-oriented training (56.66%). Lecture-cum-group discussion (90.00%), skill demonstrations (81.66%) and field visits/study tours (73.33%) were the most preferred training methods. The respondents also preferred KVK Scientists/Subject Matter Specialists (86.66%) and Agricultural Research Station scientists (76.66%) as resource persons for conducting training programmes.

Keywords: Agricultural officers, training needs, training preferences, capacity building, extension services, Kalyana Karnataka

Introduction

Agriculture occupies a place of pride in the economic development of the nation and welfare of people. With increases in population, the pressure on agriculture production is also increasing day by day. There is need to increase production and productivity of agriculture crops to feed the growing population. It is also widely recognized fact that transfer of technology from research station to farmer's field is essential for increasing agricultural production. Raitha Samparka Kendras established under Raitha Mithra Yojane during 2000 are the hobli level organization providing agricultural extension services to the farming community at the hobli level. The staffing pattern of RSKs consists of Assistant Agricultural Officers (AAO's) and Agricultural Officer (AO's). Agricultural Officers are extension personnel and the most important technical personnel at the hobli level, who are entrusted with the vital role of inducing the farmers to take up improved agricultural technology to the farming community.

Training is an essential component of human resource development that enhances the knowledge, technical skills, managerial abilities and professional competence of extension personnel. In the rapidly changing agricultural scenario, Agricultural Officers are expected to disseminate improved technologies, implement various government programmes, provide timely advisory services and address the emerging challenges faced by farmers. Continuous capacity building through need-based training is therefore indispensable for improving their efficiency and effectiveness in delivering agricultural extension services.

The role of Agricultural Officers has expanded considerably with the introduction of climate-

resilient technologies, digital agriculture, precision farming, e-governance initiatives and multiple centrally and state-sponsored development programmes. To effectively perform these responsibilities, extension personnel require regular updating of their technical knowledge and practical skills. However, training programmes often fail to achieve the desired outcomes due to inadequate assessment of training needs and limited consideration of trainees' preferences regarding training content, duration, methodology and resource persons. A systematic assessment of these aspects is therefore essential for designing effective training programmes that are relevant to the professional requirements of Agricultural Officers. Considering the importance of capacity building in public extension, the present study was undertaken to assess the training needs and training preferences of Agricultural Officers in Kalaburagi district of Kalyana Karnataka region.

Methodology

The study was conducted in seven taluks of Kalaburagi district of Kalyana Karnataka region during the year 2021–22. A total of 60 Agricultural Officers working in 27 Raitha Samparka Kendras were selected as respondents. An ex-post facto research design was employed for the investigation. The required information was collected through a structured and pre-tested interview schedule. Training need was measured using a standardized training need scale. Information regarding respondents' preferences on different aspects of training, such as place of training, duration, preferred months, training interval, nature of training, training methods and preferred resource persons was also collected. The collected data were coded, tabulated and analyzed using frequency, percentage, mean and standard deviation.

Results and Discussion

1. Extent of training needs of Agriculture officers in the area of technical aspects

The results pertaining to the extent of training needs of agricultural officers are presented in Table 1 and it was reported that majority (53.33%) of AOs, require training in medium extent and 23.33 per cent require training in low and high extent equally on agricultural practices. This shows that majority of agricultural officers require training to the medium to high extent to update their knowledge and skills. Similar findings were reported by Nongtdu *et al* (2012) ^[2], Yadav *et al* (2012) ^[3].

Table 1: Distribution of respondents based on overall extent of training need n = 60

Sl. No	Category	No of Respondents	Per cent
1.	Low Training need (<61.81)	14	23.33
2.	Medium training need (between 61.81-86.81)	32	53.33
3.	High training need (>86.81)	14	23.33
Total		60	100 %
		Mean=78.31	SD=17.15

2. Preference of Agriculture officer about different aspects of training

The findings pertaining to the training preferences of Agricultural Officers are presented and discussed under the following aspects: preferred place of training, duration, timing, training interval, nature of training, training methods and preferred resource persons.

2.1. Preferred Place of Training

The preferred place of training among Agricultural Officers is presented in Table 2. The majority (81.66%) preferred *Krishi Vigyan Kendras* (KVKs) as the venue for training programmes, followed by Agricultural Research Stations (75.00%), State Headquarters (60.00%) and District Farms (58.33%). Comparatively fewer respondents preferred Agricultural Colleges (25.00%), Extension Training Centres (13.33%) and JDA/ADA offices (13.33%).

The preference for KVKs and Research Stations may be attributed to their better infrastructure, availability of subject matter specialists and opportunities for practical learning and field demonstrations. Similar observations were reported by Raahalya and Sreeday (2021) ^[1] and Hanif and Waman (2015) ^[4].

Table 2: Preference of Agriculture officer about Place of Training n = 60

Sl. No	Place	Frequency (per cent)	Rank
1.	KVK	49(81.66%)	I
2.	Research stations (ARS)	45(75.00%)	II
3.	State Headquarters	36(60.00%)	III
4.	District farms	35(58.33%)	IV
5.	DATC	31(51.66%)	V
6.	Agriculture college	15(25.00%)	VI
7.	Extension training centers (AECSs etc)	08(13.33%)	VII
8.	Office of JDA/ADA	08(13.33%)	VIII

2.2. Preferred Duration of Training by Agriculture officer

The findings presented in Table 3 indicate that the majority (85.00%) of the respondents preferred a 5-day training programme, followed by 10 days (73.33%) and 21 days (65.00%). Only 25.00 per cent preferred one-month training, while very few (6.66%) opted for three-month training programmes. The preference for short-duration training programmes indicates that Agricultural Officers prefer concise and focused training without affecting their routine field responsibilities. Similar findings were reported by Mohan *et al*. (2020) ^[5] and Yadav *et al*. (2012) ^[3].

Table 3: Duration of training preferred by Agriculture officer n = 60

Sl. No	Duration	No of respondents	Rank
1.	5 days	51(85.00%)	I
2.	10 days	44(73.33%)	II
3.	21 days	39(65.00%)	III
4.	2 days	22(36.66%)	IV
5.	1 month	15(25.00%)	V
6.	3 month	04(6.66%)	VI

2.3 Preferred Month for Organizing Training

The preferred months for organizing training programmes are presented in Table 4. Almost all respondents (95.00%) preferred January–February, followed by March–April (81.66%) and November–December (76.66%). Comparatively fewer respondents preferred May–June (23.33%), while none preferred July–August.

The findings indicate that Agricultural Officers prefer training during relatively less busy agricultural periods when they can actively participate without affecting field activities. Similar trends were observed by Manobharathi *et al*. (2020) ^[6].

Table 4: Preferred month of training by Agriculture officer n = 60

Sl. No	Month	No of respondents	Rank
1.	January-February	57(95.00%)	I
2.	March -April-	49(81.66%)	II
3.	November -December	46(76.66%)	III
4.	May -June-	14(23.33%)	IV
5.	September -October	06(10.00%)	V
6.	July- August	00(00.00%)	VI

2.4. Training months not preferred by Agriculture officer

The results presented in Table 5 reveal that all respondents (100.00%) considered July– August unsuitable for organizing training programmes. This was followed by September–October (91.66%) and May–June (70.00%).

These months coincide with major agricultural operations such as sowing, crop management and extension activities, limiting the availability of Agricultural Officers for training programmes.

Table 5: Training month which are not preferred by Agriculture officers n = 60

Sl. No	Month	No of respondents	Rank
1.	July- August	60(100.00%)	I
2.	September -October	55(91.66%)	II
3.	May -June	42(70.00%)	III
4.	November -December	22(36.66%)	IV
5.	January-February	00(00.00%)	V
6.	March -April-	00(00.00%)	VI

2.5. Preferred Interval of Training programmes

The findings in Table 6 indicate that 82.66 per cent of the respondents preferred halfyearly training programmes, followed by half-yearly training programme(73.33%) and seasonal training (55.00%). Very few respondents preferred monthly training (11.66%) or training once in two years (15.00%).

The preference for yearly and half-yearly training reflects the need for regular updating of technical knowledge without causing excessive disruption to routine extension activities. Similar findings were reported by [Nongtdu et al. \(2012\)](#) ^[2].

Table 6: Preferred Interval of training programme by Agriculture officer n = 60

Sl. No	Interval	No of respondents	Rank
1.	Yearly	49(81.66%)	I
2.	Half yearly	44(73.33%)	II
3.	Seasonally	33(55.00%)	III
4.	Once in two year	09(15.00%)	IV
5.	Monthly	07(11.66%)	V
6.	Once in five year	00(00.00%)	VI

2.6. Preferred Nature of Training

The preference regarding the nature of training is presented in Table 7. A vast majority (93.33%) preferred both practical and theory-oriented training, while 56.66 per cent preferred exclusively practical or skill-oriented training. Only 21.66 per cent preferred theory-oriented training and 3.33 per cent opted for online training.

These findings suggest that Agricultural Officers value training programmes that combine conceptual understanding with practical exposure, enabling them to effectively transfer technologies to farmers. Similar observations were reported by [Raahalya and Sreeday \(2021\)](#) ^[1] and [Nongtdu et al. \(2012\)](#) ^[2].

Table 7: Nature of training preferred by Agriculture officers n = 60

Sl. No	Nature of training	No of respondents	Rank
1.	Both practical and theory oriented	56(93.33%)	I
2.	Practical/skill oriented	34(56.66%)	II
3.	Theory	13(21.66%)	III
4.	Online	02(03.33%)	IV

2.7. Preferred methods of training

The preferred training methods are presented in Table 8. The majority (90.00%) preferred lecture-cum-group discussion, followed by skill demonstrations (81.66%), field visits/study tours (73.33%) and workshops (60.00%). Comparatively fewer respondents preferred video teaching (36.66%), seminars (31.66%), symposia (15.00%) and conferences (13.33%).

The preference for interactive and practical methods indicates the importance of experiential learning in enhancing the professional competence of Agricultural Officers. Similar findings were reported by [Hanif and Waman \(2015\)](#) ^[4] and [Yadav et al. \(2012\)](#) ^[3].

Table 8: Preferred methods of training by Agriculture officer n = 60

Sl. No	Method of Training	No of respondents	Rank
1.	Lecture + Group discussion	54(90.00%)	I
2.	Skill demonstration	49(81.66%)	II
3.	Field trip/study tour	44(73.33%)	III
4.	Workshop	36(60.00%)	IV
5.	Video teaching	22(36.66%)	V
6.	Seminar	19(31.66%)	VI
7.	Symposium	09(15.00%)	VII
8.	Conference	08(13.33%)	VII

2.8 Preferred Resource Persons for Training

The preference regarding resource persons for conducting training programmes is presented in Table 9. The majority (86.66%) preferred KVK Scientists/Subject Matter Specialists, followed by Agricultural Research Station scientists (76.66%) and senior departmental officials (60.00%). Fewer respondents preferred experts from outside the organization (36.66%) and university professors (26.66%).

The preference for KVK and ARS scientists may be due to their practical field experience, technical expertise and familiarity with region-specific agricultural problems. Their involvement in training programmes is likely to enhance the relevance and effectiveness of capacity-building initiatives. Similar findings were reported by [Mohan et al. \(2020\)](#) ^[5].

Table 9: Preferred resource personnel for training by Agriculture officers n = 60

Sl. No	Resource Personnel	No of respondents	Rank
1.	KVK Scientist / SMS	52(86.66%)	I
2.	ARS scientist	46(76.66%)	II
3.	Senior officials of the department	36(60.00%)	III
4.	Expert from the out of organization but within state	22(36.66%)	IV
5.	University Professors	16(26.66%)	V

Conclusion

The study revealed that a majority of the Agricultural Officers had a medium level of training need, indicating the necessity for continuous capacity building to enhance their technical knowledge and professional competencies. The respondents expressed a clear preference for need-based training programmes conducted at *Krishi Vigyan Kendras* and

Agricultural Research Stations with a duration of five days, preferably during January–February. They favored halfyearly training programmes that combine theoretical and practical sessions, delivered through lecture-cum-group discussions, skill demonstrations, and field visits by KVK Scientists and Agricultural Research Station scientists. The findings highlight the importance of designing wellplanned, practical and farmer-oriented training programmes to strengthen the competencies of Agricultural Officers and improve the effectiveness of agricultural extension service delivery in the Kalyana Karnataka region.

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