



ISSN Print: 2618-060X
 ISSN Online: 2618-0618
 NAAS Rating (2026): 5.20
 IJRA 2026; SP-9(10): 41-46
www.agronomyjournals.com
 Received: 17-08-2026
 Accepted: 20-09-2026
 Published: 03-10-2026

Modi Ragini

Ph.D. Scholar, Department of Extension & Communication Management, CCSc, UAS, Dharwad, Karnataka, India

Rajeshwari N

Professor & Head, Department of Extension & Communication Management, CCSc, UAS, Dharwad, Karnataka, India

Surekha Sankangoudar

Professor & Head, AICRP (Women in Agriculture), UAS, Dharwad, Karnataka, India

MP Potdar

Professor & Head, Department of Agrometeorology, CoA, UAS, Dharwad, Karnataka, India

NM Kerur

Professor, Department of Agri-Business Management, CoA, UAS, Dharwad, Karnataka, India

Corresponding Author: Modi Ragini

Ph.D. Scholar, Department of Extension & Communication Management, CCSc, UAS, Dharwad, Karnataka, India

Development of a scale to measure the knowledge level of cotton cultivators on the recommended package of practices for cotton in *Karnataka* and *Telangana* states

Modi Ragini¹, Rajeshwari N², Surekha Sankangoudar³, MP Potdar⁴, NM Kerur⁵

DOI: <https://www.doi.org/10.33545/2618060X.2026.v9.i10Sa.6772>

ABSTRACT

A scale was developed to measure the knowledge level of cotton cultivators in the recommended package of practice of cotton in *Karnataka* and *Telangana* States. The scale was constructed using the summated rating methods suggested by Likert (1932) and Edwards (1957). The knowledge statements were framed using reports from the Central Institute for Cotton Research (CICR) on the recommended package of cotton practices in both states, along with interactions with the respective scientists, subject matter specialists, and other resource personnel involved in cotton crop research and development. After carefully examining the dimensions involved in cotton cultivation, the study identified ten components as most relevant for measuring cotton cultivators' knowledge. The relevancy ratings were provided to 100 experts to critically evaluate statements on a 5-point continuum. Of the 100 judges, 55 responded on time. Based on their judgments, 55 statements were selected using relevancy weightage scores (RWS). Statements having an equal or greater RWS of 0.75 and a mean relevancy score of 3.75 were selected for the item analysis. In the item analysis, the selected statements were administered to 50 cotton cultivators in a non-sample area of Dharwad district, *Karnataka*, during 2022-2023. Finally, item analysis selected 50 statements for the study, which were included in the final scale. The scale's "r" value was 0.922, significant at the one per cent level, indicating high reliability. Hence, the scale developed was found to be reliable and valid. The instrument developed to measure the knowledge level of cotton cultivators in the recommended package of practice of cotton in *Karnataka* and *Telangana* States can be used by the researchers.

Keywords: Knowledge, Package of practice, Cotton cultivators, Scale development

Introduction

Scale development is a crucial aspect of research in fields such as psychology, sociology, and education. Scales measure abstract concepts such as attitudes, beliefs, behaviors, and personality traits. Developing a reliable and valid scale involves several steps, including item generation, pilot testing, scale purification, and validation.

Cotton is one of India's major fiber and commercial crops and is considered the backbone of Indian agriculture and the industrial revolution. Cotton is often referred to as the "King of Fibers" and known as "White Gold" because of its importance in agriculture and the industrial economy worldwide. Currently, cotton employs more than 6 million farmers in the country. In addition, cotton indirectly employs 40 to 50 million people in activities related to cotton cultivation, processing, and trading in national and global markets, impacting the country's overall economic development (Radhika and Kumari, 2018).

Given its importance, cotton has become a major focus of agricultural value chains (AVCs) in India. Cotton is grown in almost all agroclimatic regions of the country, benefiting every individual involved in the cotton value chain. Therefore, proper knowledge of cotton cultivation may improve yield and productivity for all stakeholders in the value chain.

Development and standardization of a scale to measure the knowledge of cotton cultivators on the recommended package of practice of cotton in *Karnataka* and *Telangana* States.

A scale was developed to measure cotton cultivators' knowledge of the recommended package of cotton practices in *Karnataka* and *Telangana* States. The scale was constructed using the summated rating method suggested by Likert (1932) [1] and Edwards (1957) [2]. The scale development process involved several deliberate steps. The details of the steps followed in developing the scale to measure the knowledge of cotton cultivators are discussed below:

1. Identification of components

As a first step, the available literature on the recommended package of practice of cotton in *Karnataka* and *Telangana* States was collected from different sources. Based on the Central Institute for Cotton Research (CICR)- recommended package of practice for cotton in *Karnataka* and *Telangana* States, and through inter

actions with resource persons involved in cotton crop management, ten components related to cotton cultivators' knowledge of the recommended package of practice were identified. After carefully examining the dimensions involved in cotton cultivation, ten components were identified as most relevant for measuring cotton cultivators' knowledge; namely, 1. Cotton Varieties, 2. Production, 3. Integrated Nutrient Management (INM), 4. Weed Management, 5. Irrigation, 6. Crop Rotation, 7. Physiological Disorders, 8. Crop Protection, 9. Major Insects & Pests, and 10. Harvesting and Post-Harvesting.

2. Collection and editing of statements

The relevant statements covering the overall information on the cotton package of practice were collected through an extensive literature review and discussions with experts in the field. A total of 80 statements reflecting knowledge of the recommended cotton package of practice in *Karnataka* and *Telangana* States were generated. The statements were edited using criteria suggested by [Edwards \(1957\)](#) [2] to remove double negatives, ambiguity, and complexity.

$$\text{Relevancy Weightage (RW)} = (\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)$$

Maximum possible score ($55 \times 5 = 275$)

$$\text{Relevancy Percentage (RP)} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Maximum possible score } (55 \times 5 = 275)} \times 100$$

$$\text{Mean Relevancy Score (MRS)} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Number of judges responded}}$$

Using these three criteria, the statements were screened for relevance, and those with a relevance weightage of more than 0.75, a relevance percentage of more than 75 percent, and a mean relevance score of more than 3.75 were considered for final selection. Through this process, 15 statements were isolated in the first screening stage and modified and rewritten based on expert feedback. Thus, finally, 65 statements were selected after the relevance test.

4. Item analysis

The selected 65 statements were subjected to item analysis to identify items based on their ability to differentiate respondents with high and low knowledge. Thus, the scrutinized statements representing cotton cultivators' knowledge of the recommended package of cotton practices were administered to 50 cotton cultivators from a non-sample area and selected for the study. In personal interviews, respondents indicated their degree of agreement or disagreement with each statement on a five-point continuum (strongly agree, agree, undecided, disagree, and strongly disagree), with scores of 5, 4, 3, 2, and 1, respectively.

The responses are recorded, and the total score for each respondent is obtained. The scores were then arranged in descending order. Next, the 25 percent with the highest scores (high group) and the 25 percent with the lowest scores (low group) were selected for item analysis. These responses were subjected to item analysis to select the items that constitute the final knowledge scale for cotton cultivators on the recommended package of cotton practices in *Karnataka* and *Telangana* States.

The critical ratio, i.e., *t*-value, which measures the extent to which a given statement differentiates between the high and low groups of respondents for each statement, is calculated using the following formula.

Where,

$\bar{X}_H$ = Mean score on the given statement of the high group

$\bar{X}_L$ = Mean score on the given statement of the low group

$\sum X^2_H$ = Sum of squares of the individual scores on a given statement for the high group

3. Relevancy weightage test

The relevancy of the items generated was established by sending these statements to 100 judges with appropriate instructions. The judges comprised experts in the field from SAUs and ICAR Institutes. The experts were requested to rate the degree of relevancy of each statement on the knowledge of cotton cultivators towards the recommended package of practice of cotton in *Karnataka* and *Telangana* States on a five-point continuum as 'Most Relevant' (MR), 'Relevant' (R), 'Somewhat Relevant' (SWR), 'Less Relevant' (LR) and 'Not Relevant' (NR) with scores 5, 4, 3, 2 and 1, respectively.

Out of 100 judges, 55 of them responded within a period of two months. The scores for each of the items were summed over all the respondents, and the appropriateness of each item was defined with 'Relevancy Weightage' (RW), Relevancy Percentage' (RP) and 'Mean Relevancy Score' (MRS) using the following formulae:

$$t = \frac{\bar{X}_H - \bar{X}_L}{\frac{\sum X^2_H - (\sum X_H)^2}{n} + \frac{\sum X^2_L - (\sum X_L)^2}{n}} \times \frac{n}{n-1}$$

$\sum X^2_L$ = Sum of squares of the individual scores on a given statement for the low group

n = Number of respondents in each group

$\sum$ = Summation

t = Extent to which a given statement differentiates between the high and low groups

After computing the ' t ' value for all the items with the help of the above formula, items with a ' t ' value equal to or greater than 1.75 were selected, and those with a ' t ' value below 1.75 were rejected, as the thumb rule suggested by [Edwards \(1957\)](#) [2].

Based on item analysis, 55 statements were selected and included in the Knowledge scale for cotton cultivators on the recommended package of cotton practices in *Karnataka* and *Telangana* States.

5. Standardization of scale

A scale should measure what it intends to measure and be consistent in its measurement. A scale must be standardized before it is administered. The present scale developed was also standardized by testing its reliability and validity.

6. Reliability of the scale

A scale, or any other instrument, is considered reliable when it produces consistently similar results. In other words, reliability refers to the consistency of scores obtained by the same individuals on different occasions or with different sets of equivalent forms ([Anastasi, 1961](#)) [3].

In the present study, the split-half method was used to test the scale's reliability. For this purpose, the scale was split into two halves based on odd and even item numbers. Using the Statistical Package for the Social Sciences (SPSS), the scores were subjected to a correlation test

to determine reliability. The half-test reliability coefficient was 0.855. The Spearman-Brown formula was also used to calculate the whole test's reliability coefficient. The 'r' value of the scale was 0.922, which was highly significant at the one per cent level, indicating the high reliability of the scale. It was concluded that the knowledge scale was constructed for cotton cultivators on the recommended package of cotton practices in *Karnataka* and *Telangana* States.

7. Validity of the scale

Guilford (1954) [4] reported that a test is valid when it measures what it is supposed to measure. The scale's validity was assessed to study cotton cultivators' knowledge of the recommended package of cotton practices in *Karnataka* and *Telangana* States and was ensured through content and statistical validation.

In the present study, the knowledge components were identified through review of relevant literature and discussion with experts in the field. Experts' opinions were sought to assess the relevance of the components and their perceptions. This justified the scale's content validity.

8. Administration of knowledge scale and method of scoring

The final scale comprises 50 statements. Responses were based on knowledge of the POP of cotton (known and unknown), with weights of 1 and 0, respectively. The knowledge score of the respondents was calculated by adding up the scores obtained under each subcomponent. Thus, the maximum and minimum scores were 55 and 0, respectively. The knowledge index for cotton cultivators was calculated using the following formula.

$$\text{Knowledge Index} = \frac{\text{Actual Score}}{\text{Maximum Score}} \times 100$$

(Item analysis using Relevancy Weightage (RW), Relevancy Percentage (RP), and Mean Relevancy Score (MRS) and selection of statements)

Table 1. A scale to measure the knowledge level of cotton cultivators on the recommended package of practice of cotton in *Karnataka* and *Telangana* States

Knowledge statements	RW	RP	MRS	Selected/ Rejected
I. Cotton varieties				
Abadhita, RAMPBS 155, Sahana, Ganesh (ACP 71) Gouri (AH 107) and RAH 100 are the <i>Hirsutum</i> hybrids of cotton	0.80	80.36	4.02	Selected
NHH 44, DHH 11, Suvidha (DHH – 543) and Bunny (NCH – 145) are the intra- <i>Hirsutum</i> hybrid varieties of cotton	0.82	81.82	4.09	Selected
Sharda, Abadhita and Sahana in <i>G.hirsutum</i> and DB 3-12 and Raichur 15 in <i>G. herbaceum</i> are cotton varieties suited for <i>Karnataka</i> .	0.45	45.09	2.25	Rejected
RAMPBS 155 is tolerant to leaf reddening in cotton	0.74	71.64	3.58	Rejected
Jayadhar is a local variety resistant to pest and diseases	0.65	65.45	3.27	Rejected
Ganesh is a variety of cotton suitable for intercropping with maize	0.81	81.09	4.05	Selected
II. Production				
A) Seed treatment				
Delinted seeds are used for uniform and higher germination of cotton	0.80	79.64	3.98	Selected
<i>Azospirillum</i> and Phosphorous Solubilising Bacteria (PSB) are used to treat seeds to save application of Nitrogen and Phosphorus	0.88	88.00	4.40	Selected
B) Seed rate				
Up to 10 Kgs/ha of seed is needed to sow under drill-sown conditions	0.84	83.64	4.18	Selected
Up to 6 Kgs/ha of seed is needed to sow under hand dribbling	0.84	84.36	4.22	Selected
C) Time of sowing				
The time for sowing interspecific and intra <i>hirsutum</i> is from May to July	0.64	64.00	3.20	Rejected
The time for sowing local varieties is from July to September	0.81	80.73	4.04	Selected
Hybrids are sown between May to July	0.82	82.18	4.11	Selected
III. Integrated nutrient management (INM)				
A) Organic fertilizers				
FYM and Compost required for manuring of cotton crop under irrigated conditions is 10 tons/ha	0.80	80.36	4.02	Selected
FYM and Compost required for manuring of cotton crop under rainfed conditions is 5 tons/ha	0.83	82.91	4.15	Selected
Incorporating cotton stalks along with FYM before sowing under irrigated conditions help in retaining the nutrients	0.82	82.18	4.11	Selected
B) Inorganic fertilizers				
The recommended fertilizer dose is N:P:K 40:25:25 under rainfed condition	0.84	84.36	4.22	Selected
The recommended fertilizer dose for is N:P:K 80:40:40 under irrigated conditions	0.79	78.55	3.93	Selected
Under rainfall conditions the basal dose for fertilizer application is 50% of Nitrogen and K ₂ O and entire P ₂ O ₅	0.56	56.36	2.82	Rejected

(continued on next page)

Knowledge statements	RW	RP	MRS	Selected/ Rejected
The top dressing should be 25% of Nitrogen and K ₂ O at 30 days after sowing and remaining 25% Nitrogen and K ₂ O at 60 days after sowing	0.85	84.73	4.24	Selected
IV. Weed management				
Keeping the plots weed free up to 60 days help in healthy growth of Cotton Crop	0.80	79.64	3.98	Selected
Inter cultivation helps in controlling of weeds and conservation of available moisture	0.84	84.00	4.20	Selected
Diuron is a weedicide used for pre-emergent application	0.59	58.55	2.93	Rejected
V. Irrigation				
Red soil need more irrigation than black soil	0.83	83.27	4.16	Selected
Flowering and Fruiting Stage are the critical stage of irrigation	0.87	86.55	4.33	Selected
Heavy Soils should have drainage to avoid water clogging	0.86	86.18	4.31	Selected
Drip irrigation save electricity labour and water	0.81	81.09	4.05	Selected
VI. Crop rotation				
Ground nut, jowar, wheat and green gram can be used as succeeding crops after cotton	0.80	80.00	4.00	Selected
Maize, chickpea, sunflower and soya bean can be cultivated in the 2nd year after cotton is harvested	0.76	75.64	3.78	Selected
VII. Physiological disorders				
Square drying, flowers and premature boll dropping and leaf reddening are the major Physiological disorders in cotton	0.87	86.91	4.35	Selected
Squares, flowers and boll dropping can be minimized by foliar sprays of Planofix during pre-flowering and peak flowering stage of the cotton crop.	0.78	78.18	3.91	Selected
During winter season twice foliar sprays of 1% MgSO ₄ or 2% urea or DAP at 90 DAS and 110 DAS helps to reduce the leaf reddening.	0.80	80.36	4.02	Selected
VIII. Crop protection				
Seedling rot is the symptom that decays the seedlings before emergence, girdling of the seedling stems and root rot.	0.90	89.82	4.49	Selected
Bacterial blight can be controlled by foliar sprays of Streptocycline Sulphate @ 0.5 gm/litre and Copper-Oxychloride @ 3 g / litre of water as and when symptoms seen	0.85	85.45	4.27	Selected
Wilting occurs in adult plants become weak coupled with yellowing of leaves with senescence and drying	0.88	88.36	4.42	Selected
IX. Major insect pests & symptoms				
Yellowing, reddening along the leaf margin and complete drying of leaves are the symptoms caused by jassids.	0.83	82.91	4.15	Selected
Thrips causes white streaks on leaves and complete drying of leaves	0.79	78.55	3.93	Selected
Yellowing, crinkling and development of black sooty mildew on leaves are developed through Aphids	0.84	84.36	4.22	Selected
X. Harvesting & post-harvesting				
The time of picking is an important aspect for maintaining seed quality	0.82	82.18	4.11	Selected
Picking should be commence only when the cotton is fully mature	0.86	85.82	4.29	Selected
Several pickings may be necessary since bolls ripen every two to three months	0.84	84.00	4.20	Selected
Early cotton picking gives slightly better seeds for germination	0.70	69.82	3.49	Rejected
The planting seed is best gathered at the peak of the harvest.	0.83	82.55	4.13	Selected
The cotton picked from late - formed bolls (last pickings) should not be kept for seeds	0.62	62.18	3.11	Rejected
Picking should be started when bolls are fully mature.	0.69	69.45	3.47	Rejected
Picking should not be done while the bolls are wet from dew or rain.	0.74	73.82	3.69	Rejected
Bolls spoiled by rains, or damaged by insects, or otherwise damaged, should be picked separately and discarded.	0.72	71.64	3.58	Rejected
Damaged bolls can be picked 10 to 15 days ahead of the first picking.	0.65	65.45	3.27	Rejected
The damaged bolls should not be picked during normal pickings for seed purposes.	0.70	70.18	3.51	Rejected
Cotton should be clean, with a minimum amount of material such as leaves and plant parts	0.76	75.64	3.78	Selected
Cleaning of cotton reduces the possibility of mechanical damage from excessive machining of the fibre during ginning.	0.80	80.00	4.00	Selected
Moist cotton should not be stored in any way	0.74	74.18	3.71	Selected
Damp cotton requires more processing in the gin.	0.81	81.09	4.05	Selected
The picked cotton, when it is completely dry, should be stored in a dry place.	0.78	78.18	3.91	Selected
The picked cotton, should be covered if not ginned immediately	0.84	83.64	4.18	Selected
Bt cotton				
The suitable soil type for Bt cotton hybrid is deep black cotton soil	0.84	84.36	4.22	Selected

(continued on next page)

Knowledge statements	RW	RP	MRS	Selected/ Rejected
The quantity of FYM required per ha is 10 tones	0.91	90.91	4.55	Selected
Proper time of application of FYM is 2-3 weeks before sowing	0.88	88.00	4.40	Selected
<i>Mallika</i> , Kanaka and Bunny are the Bt cotton hybrids	0.50	49.82	2.49	Rejected
<i>Mallika</i> is the high yielding hybrid of Bt cotton	0.53	52.73	2.64	Rejected
The correct time for sowing of Bt cotton hybrid is from May to July 15	0.85	85.09	4.25	Selected
The seed rate of Bt cotton is 2.5 to 3 kgs per hectare	0.83	82.55	4.13	Selected
The spacing maintained in Bt cotton (Plants x Rows in cm) is 90x60 cm	0.87	86.55	4.33	Selected
Sun hemp is used as the green manure in Bt cotton	0.70	70.18	3.51	Rejected
<i>Azospirillum</i> is the biofertilizer used in Bt cotton	0.65	64.73	3.24	Rejected
Manual dibbling is the best suited method of sowing the seeds of Bt cotton	0.80	80.00	4.00	Selected
Thiomethaxan is the chemical used in seed treatment	0.57	57.09	2.85	Rejected
The suitable trap crop for Bt cotton are bhendi and tomato	0.81	81.09	4.05	Selected
The crops like chilli, cowpea and pigeon pea are taken as inter crop for Bt cotton	0.83	82.91	4.15	Selected
Quantity of NPK required per ha is 150:75:75	0.81	81.45	4.07	Selected
The proper timing for top dressing is 30 DAS	0.80	79.64	3.98	Selected
The inter cultivation operation required in Bt cotton is 2-3 times	0.87	86.91	4.35	Selected
The recommended weedicide for the control of weeds is Pendimethalin	0.66	65.82	3.29	Rejected
5 to 6 irrigations are required for Bt cotton crop	0.84	84.00	4.20	Selected
The frequency of irrigation to be maintained at 10 days interval	0.80	79.64	3.98	Selected
The major pest attack in Bt cotton is observed by the incidence of leaf hopper, thrips and mirid bugs.	0.84	84.36	4.22	Selected
Acitamidpride and trizophos are the chemicals used for pest management of Bt cotton	0.71	70.55	3.53	Rejected
Leaf spot and cotton rust are the major disease to be taken care in cotton cultivation.	0.86	85.82	4.29	Selected
The chemical used for cotton rust disease management in Bt cotton is copper oxychloride	0.68	68.00	3.40	Rejected
The chemical which can be used to control flower dropping is Planofix	0.63	63.27	3.16	Rejected
Leaf reddening can be managed by application of 1% Magnesium sulphate (MgSO ₄)	0.64	64.36	3.22	Rejected
The required number of pheromone traps is 4 to 5 per ha	0.77	77.09	3.85	Selected
Three to four pickings can be taken in Bt cotton	0.83	82.55	4.13	Selected
The average yield that can be obtained per ha of Bt cotton is 25 – 30 quintals per hectare	0.87	86.91	4.35	Selected

Conclusion

In the end, the knowledge scale developed was found to be reliable and valid. The knowledge scale was administered to 50 registered farmers from a non-sample area; there were no complications in using

the scale; hence, it can be concluded that the scale was useful in explicitly measuring the knowledge of cotton cultivators on the recommended package of practice of cotton in Karnataka and Telangana states. Further, researchers may use this scale in future for measuring the knowledge level of cotton cultivators in parallel research work.

Rajeshwari N and Dolli S S, 2020, Development of a scale to measure the perception and acceptance	of Information Technology (IT) enabled comprehensive farm advisory services by farmers.	<i>International Journal of Current Microbiology and Applied Sciences</i> , 9(7):3299-3308.
Reddy P N, Lakshmi T and Prasad S V, 2014, Standard test to measure knowledge of cotton farmers	on health hazards of pesticides usage in Kurnool District of Andhra Pradesh. <i>IOSR Journal of</i>	<i>Agriculture and Veterinary Science</i> , 7(5):24-29.

References

- Likert RA. A technique for the measurement of attitude. *Archives of Psychology*. 1932;140:1-55.
- Edwards AL. *Techniques of attitude scale construction*. New York: Appleton-Century-Crofts; 1957.
- Anastasi A. *Psychological Tests: Uses and Abuses*. Teachers College Record: The Voice of Scholarship in Education. 1961;62(5):1-5.
- Guilford JP. *Psychometric Methods*. Bombay: Tata McGraw-Hill Publication Co. Ltd.; 1954:378-382.
- Chowdary KR, Prasad SV, Satyagopal PV, Reddy GP, Naidu GM. A scale to measure the attitude of farmers towards backward and forward linkages in cotton cultivation. *Current Journal of Applied Science and Technology*. 2020;39(48):424-429.
- Harikrishna YV, Patel JB, Vinaya Kumar HM. Development of a scale to measure the attitude of extension personnel towards e-extension. *Gujarat Journal of Extension Education*. 2021;32(1):34-37.
- Naik SB. A study on knowledge and adoption of *Bacillus thuringiensis* (Bt) cotton practices followed by farmers in Haveri district, Karnataka. M.Sc. (Agri.) Thesis, University of Agricultural Sciences, Dharwad; 2009.
- Prashanth P, Reddy MJM, Rao IS. Assessment of knowledge levels of organic and conventional cotton farmers. *Agricultural Update*. 2012;7(3&4):171-174.
- Sangeetha V, Prasad SV. Knowledge of cotton growers in the recommended package of practices of cotton cultivation. *Indian Journal of Extension Education*. 2009;45(3&4):7-10.
- Smitha S, Sreeram V, Onima VT, Krupal G. Scale to measure attitude of the farmers towards greenhouse technology. *Agricultural Update*. 2016;11(2):158-162.

11. Thurstone LL, Chave EG. The measurement of attitude. Chicago, USA: University of Chicago Press; 1929:39-40.

How to cite this article: Modi R, Rajeshwari N, Sankangoudar S, Potdar M, Kerur N. Development of a scale to measure the knowledge level of cotton cultivators on the recommended package of practices for cotton in *Karnataka* and *Telangana* states. *International Journal of Research in Agronomy*. 2026;SP-9(10):41-46. doi: <https://www.doi.org/10.33545/2618060X.2026.v9.i10Sa.6772>