

## ASSESSMENT OF STRESS AMONG THE AGRICULTURE OFFICERS IN TAMIL NADU

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### Abstract

*Stress is an omnipotent and omnipresent in all the walks of the life. Since stress is inevitable and invincible, only option left out is managing the stress. This study conducted among the agricultural officers working in the State Department of Agriculture, Government of Tamil Nadu under various position and responsibility to understand their ability to manage the stress. All the agricultural officers participated in the training program organised by the STAMIN (State Agricultural Extension Management Institute), Kudumiyamalai were the respondents. Total of 113 agricultural officers (ADA-51, AO-22, DyAO- 40) were asked to fill the pretested and semi structured questionnaire. The primary objectives of the study are to measure the level of stress among the Agricultural Officers in Tamil Nadu and to analyze factors of stress among the employees. The study revealed that stress level is found across the all the age group, gender and position. It also found that among the Agricultural Officer (AO) and Assistant Director of Agriculture (ADA) experience is the main factor which increasing officer's ability to manage the stress. But ironically among the Deputy Agricultural Officer (DyAO) experience is not positively contributed towards their ability to manage the stress. Thus, it concluded that experience alone may not help to cope with stress, but it is education and position holds the key. The results of the study also showed that there was a significant difference between ADA & DYAO and AO & ADA and there was a no significant difference betweenand AO & DYAO on ability to handle the stress.*

**Key words:** Stress, Coping strategy, Agricultural officers, India

### Introduction

The pace of modern life is faster than before. Often, we are overwhelmed with the long list of to do every day. Stress is now a part of our day-to-day lives and is experienced by everyone who is living or working. Stress is a multifarious occurrence. It is a very idiosyncratic experience, what may be a simple experience for one will be a cause of stress for another being. It hugely depends upon the age, education, family circumstances, learning & experiences, personality and environmental forces. Stress is a part of life and is generated by constantly changing situations in life that a person must face. The term stress discusses an

inner state of an individual, which consequences from infuriating or unsatisfying condition. Certain level of stress is unavoidable and because of its complex nature stress has been studied for many years by researchers in psychology, sociology, management and medicine. According to Selye (1976) stress is caused by physiological, psychological and environmental demands. When confronted with stressors, the body creates extra energy and stress occurs because our bodies do not use up all of the extra energy that has been created. Selye first described this reaction in 1936 and coined it the General Adaptation Syndrome (GAS). The GAS includes three distinct stages: a) alarm reaction, b) stage of resistance c) stage of exhaustion.

Lazarus (1966) pointed out that stress occurs when there are demands on the person, which taxes or exceeds his adjustable resources. Levine (1990) described that "Stress is a part of an adaptive biological system, where a state is created when a central processor registers an informational discrepancy." Stress at work resulting from increasing complexities of work and its divergent demand, has become a prominent and pervading feature of the modern organizations. Caplan Cobb and French (1975) have accordingly defined occupational stress as "any characteristics of job environment which poses a threat to the individual". Copper and Marshall (1976) have expressed that "by occupational stress is meant negative environmental factors or stressors associated with a particular job". Maslach and Jackson (1982) expressed "work pressure as one of the determinants of burnout". Renu and Arumugasamy (2013) have found "that only one burnout dimension, i.e. emotional exhaustion, was closely related to work stress". Occupational stress may produce both overt psychological and physiologic disabilities. However, it may also cause subtle manifestation of morbidity that can affect personal wellbeing and productivity

Considering the consequences of stress on the productivity of the employee is needed to address in time. Thus, present study is aimed to address and analyse the level of stress among the Agricultural Officers in Tamil Nadu and to analyze factors that inducing the stress among the employees.

### **Methodology**

State Agricultural Extension Management Training Institute (STAMIN) is continuously offering training programmes for agricultural officers working in the Department of Agriculture, Govt of Tamil Nadu. It is planned to collect the data from all the officers who are participating in the various training programme in the month of October, 2020. Hence,

Totally 131 officials (ADA-51, AO-22, DyAO- 40) participated in the training were the respondent of our study. The required primary data were collected by administering interview schedules to the respondents. The questioner was pre-tested before issuing it to the respondents. Upon collection of the data from the respondents, focus group discussion were also held among different groups of officers based on their position. Relevant secondary data were also collected pertaining to the ongoing schemes and programmes promoted by both central and state scheme. Data were analysed with appropriate statistical tool such as t-test, Anova of variance and Scheffe's test.

### Findings and Discussion

The research design chosen is descriptive as the study reveals the existing facts. Descriptive research is the study which describes the characteristics of an individual or a group. This study is about how the selected variables of individuals influencing their stress management behaviour. In order to understand, the differences in the ability to cope with stress among the agricultural officers, it is better to divide them based on their position or designation and gender. Since, gender and power two important variable, hugely influence stress level among the employee. Table 1. Showed that employees grouped based on their designation or responsibility.

**Table 1: Classification of Respondents based on their Designation**

Job Variables	Category	N	%
Types of Position	Deputy Agriculture Officer (DyAO)	40	19.46
	Agricultural Officer (AO)	22	45.14
	Assistant Director of Agriculture (ADA)	51	35.40
	Total	113	100.00

Table 1 shows that block level officers are representing almost half of the total respondents in the training. It is mainly due to responsibility of the ADA and they are responsible to provide direction to the AO and DyAO. One-fifth of the respondents are representing the middle level officer of AO. About one-third of the respondents from lower level officer of DyAO. Table 2. Provides information pertaining to gender among the respondents.

**Table 2: Classification of Respondents based Gender**

Personal Variables	Category	N	%
Gender	Female	30	26.55
	Male	83	73.45

The table 2 shows that gender wise classification on Stress level in agriculture officers. In total sample, women constitute a one fourth of the total respondents and men constitute three fourth of the total respondents.

### **Gender Difference in Managing Stress.**

Men and women tend to react differently with stress—both psychologically and biologically. These differences also need to be studied in order to have a better understanding in the gender difference observed for many disorders, which are likely to be contributed by the gender difference in stress reactivity and responses. Such an understanding would have a significant impact on our understanding about how adult health is set during early life and how adult disease could be prevented in men and women.

**Table 3**  
**SUMMARY OF MEAN VALUES AND INDEPENDENT 'T' TEST FOR**  
**FEMALE AND MALE AGRICULTURE OFFICERS ON STRESS**

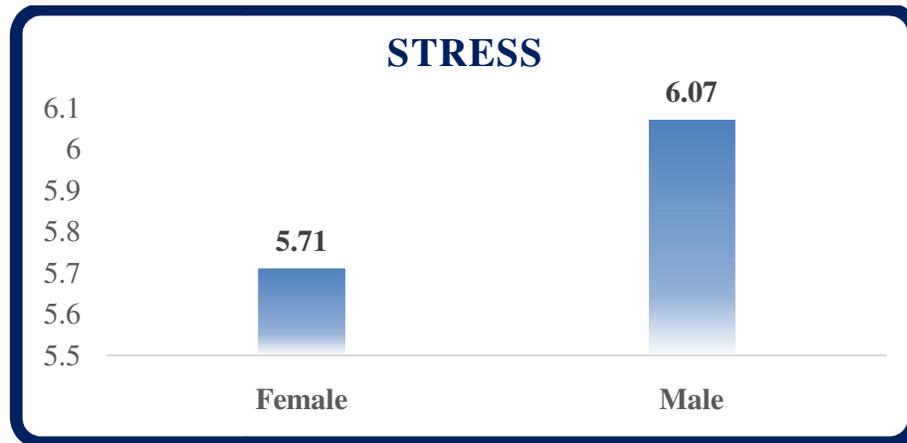
Gender	Number	Mean	Standard Deviation	't' ratio
Female	30	5.71	1.78	0.71
Male	83	6.07	2.28	

(Table value required for significance at 0.05 level for 't' test with df 11s 1.98).

From the table 3 it was observed that the mean values of female and male agriculture officers are 5.71 and 6.07 respectively. The obtained value is 0.71 which is lesser than the required table of 1.98 with df 111 at 0.05 level of significance. Based on the results It was concluded that there was a no significance difference between female and male agriculture officers on stress reactivity. It is mainly due to under representation of women respondents in the sampling.

But prevalent literatures were showed that stress handling ability of the women was lower than their counterpart men. It is mainly due to women's view the happening with emotional lens whereas men viewed through problem solution lens. In contrary to the literature, our results show no difference among the gender due a smaller number of sampling

from women. The means values of Female & Male agriculture officers on Stress are graphically represented in the Figure – I.



**Figure-I: The means values of Female & Male agriculture officers on Stress**

Hence, it is better to analysis among the women participant’s ability to cope with stress based on their age and experience and the results showed in the Table 4.

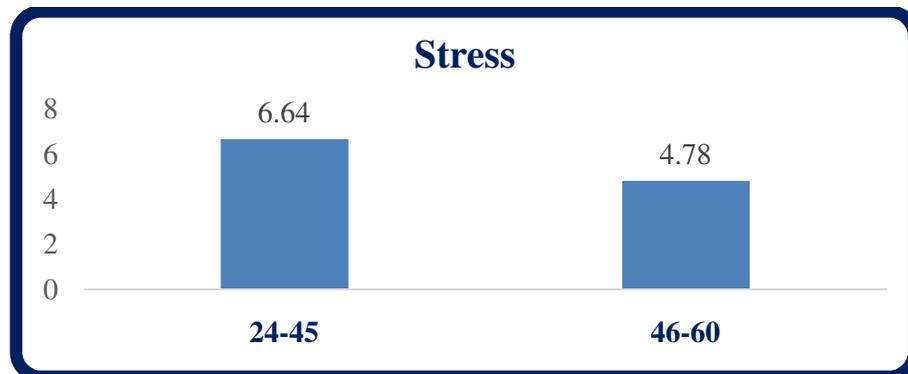
**Table 4  
SUMMARY OF MEAN VALUES AND INDEPENDENT ‘T’ TEST FOR  
FEMALE ON DIFFERENT AGE GROUP OF AGRICULTURE OFFICERS ON STRESS**

Gender	Number	Mean	Standard Deviation	‘t’ ratio
24-45	15	6.64	1.60	3.19*
46-60	15	4.78	1.78	

(Table value required for significance at 0.05 level for ‘t’ test with df 26 is 2.06).

From the table 4 it was showed that the mean values of female on different age group of agriculture officers are 6.64 and 4.78 respectively. The obtained ‘t` value is 3.19 which is greater than the required table of 2.06 with df 26 at 0.05 level of significance. It was concluded that there was a significance difference between different age group among the women agriculture officers on handling of stress. Women officers in the age group of 24-45 felt with relatively more stress than the women officer in the age group of 46-60. It is mainly because, by increasing the age it increases the experience in the job. Experience act as barrier to protect senior officer while handling the situation. Whereas younger women officer because of lack of experience to handling the pressurized situation ended with more stress.

The means values of female of different age group agriculture officers on Stress are graphically represented in the Figure – II.



**Figure-II: The means values of female of different age group agriculture officers on Stress**

While analysing the stress management behaviour among the men agricultural officer, results showed different picture. Results of men agricultural officers are depicted in table.5

**Table 5**  
**SUMMARY OF MEAN VALUES AND INDEPENDENT 'T' TEST FOR**  
**MALE ON DIFFERENT AGE GROUP OF AGRICULTURE OFFICERS ON STRESS**

Age	Number	Mean	Standard Deviation	't' ratio
24-45	18	6.00	1.64	0.14
46-60	65	6.09	2.42	

(Table value required for significance at 0.05 level for 't' test with df 83 is 1.99).

From the table 5 it was showed that the mean values of male on different age group of agriculture officers are 6.00 and 6.09 respectively. The obtained 't' value is 0.14 which is lesser than the required table of 1.99 with df 83 at 0.05 level of significance. It was concluded that there was a no significance difference between different age group male agriculture officers on Stress.

Age and experience did not contribute significantly to cope with a stress among the men agricultural officers. Contradict to the women agricultural officers, stress level is slightly higher while increasing age and experience. It may be due to additional responsibility and assignment with multitask. Younger men agricultural officers though they are assigned with task with target, entire responsibilities were with higher officials or senior officers. Moreover, younger men officers were with easy going attitude when compare with their women counterpart. studies are also suggested that work ethics and values among the youngsters are relatively lower than elders.

### Computation of Analysis of Covariance

Variables like age, gender and experience among the agricultural officers though influencing their ability to cope with stress but did not offer scope to explain fully. Thus, to understand the mechanism further, we computed analysis of covariance based on their position and responsibility.

The descriptive measures and the results of analysis of covariance on the criterion measures were given in the following table 6.

**Table – 6**  
**Computation of Mean and Analysis of Covariance on Stress of Agriculture officers**

Values	DYAO	AO	ADA	Source of Variance	Sum of Squares	df	Mean Square	F
Mean	6.59	6.35	5.35	BG	37.66	2	18.83	9.23*
S.D	2.52	2.06	2.05	WG	224.40	110	2.04	

\*Significant at 0.05 level. Table value for df 2, 110 was 3.08

The above table indicates the adjusted mean value on stress of DYAO and AO were 6.59 and 6.35 respectively. The obtained F-ratio of 9.23 for adjusted mean was greater than the table value 3.08 for the degrees of freedom 2 and 110 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among DyAO, AO, and ADA on Stress.

It clearly indicates that stress management behaviour significantly varied among the agricultural officer based on their position, power and responsibility. ADAs are relatively better in their stress level. It may be due to though ADAs were with more responsibilities, they have a power to direct and delegate the roles. In the case of DyAO delegation of authority is very less and they are answerable to the higher officials (AO and ADA) and have a responsible to finish the task on time. This brought them under stress. In the case AO, they have a chance to direct DyAO and other office functionaries like Agricultural Technology Manager (ATM) and BTM (Block Technology Manager). Hence, it concluded that power relation among the agricultural officers played vital role among them in coping with the stress.

Since the obtained 'F' ratio value was significant further to find out the paired mean difference, the Scheffe's test was employed and presented in table 5.

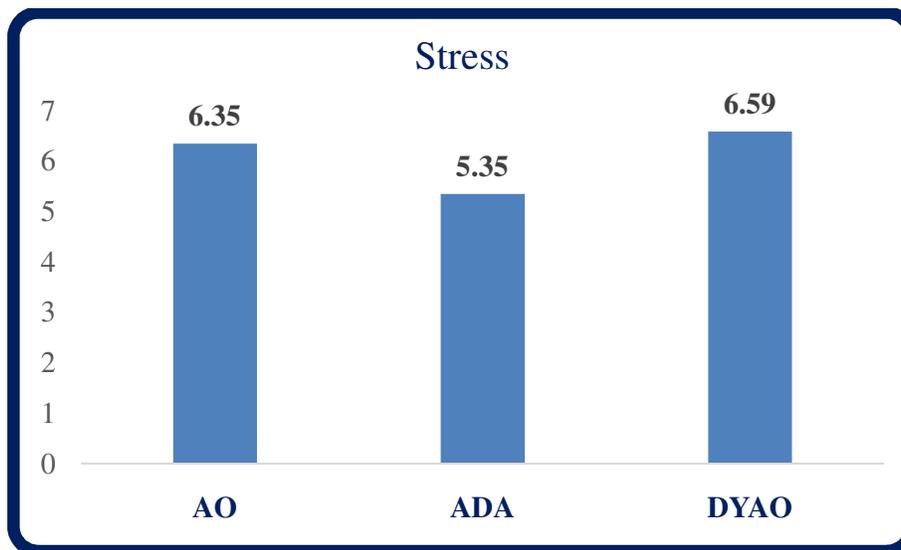
**TABLE – 7**  
**THE SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON STRESS**

DYAO	AO	ADA	MD	CI
6.59	-	5.35	1.24*	0.81
-	6.35	5.35	1.00*	
6.59	6.35	-	0.14	

\*Significant at 0.05 level of confidence.

The table 5 shows that the mean difference values between ADA & DYAO, AO & ADA and AO & DYAO are 1.24, 1.00 and 0.24 respectively the confidence interval value 0.81 at 0.05 level of confidence. The results of the study showed that there was a significant difference between ADA & DYAO and AO & ADA and there was a no significant difference between and AO & DYAO on stress.

The means values of AO, ADA & DYAO on Stress are graphically represented in the Figure – IV.



**Figure-IV: The means values of AO, ADA & DYAO on Stress**

### Summary and Conclusion

Agricultural officers in the different cadre employed at the department of Agriculture, Government of Tamil Nadu are entrusted with technology dissemination and extension work among the farming community. Since agriculture is seasonal business, time boundedness in carrying out the work and achieving the target within the stipulated time are inevitable. Thus, it has a potential to accrue or build stress among the employee. Hence, this study was planned to assess the stress management behaviour among the agricultural officer of different category like Deputy Agricultural Officer (DyAO- 40), Agricultural Officer (AO-

22), Assistant Director of Agriculture (ADA-51). The study revealed that stress level is found across the all the age group, gender and position. It also found that among the Agricultural Officer (AO) and Assistant Director of Agriculture (ADA) experience is the main factor which increasing officer's ability to manage the stress. But ironically among the Deputy Agricultural Officer (DyAO) experience is not positively contributed towards their ability to manage the stress. Thus, it concluded that experience alone may not help to cope with stress, but it is education and position (power relations) holds the key. The results of the study also showed that there was a significant difference between ADA & DYAO and AO & ADA and there was a no significant difference between and AO & DYAO on ability to handle the stress.

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