CHAPTER - II

REVIEW OF LITERATURE
CHAPTER II

REVIEW OF LITERATURE

The present investigation was designed to study the effectiveness of Farm Radio Lessons (Farm-School-on-the-Air) on Sericulture. This study was taken up to have an understanding of the association, if any, between the socio-personal characteristics of the registered and non-registered farmers and the impact of this Farm Radio Lessons on their knowledge level. It also aimed to find out the what extent of the utilization of new practices in mulberry cultivation and silk rearing as recommended consequent of their exposure to series of Farm Radio Lessons. Further, the study was also aimed at understanding the opinion of the farmers about Farm Radio Lessons (Farm-School-on-the-Air).

Keeping the above aspects in view, the relevant literature has been reviewed and presented below under the following headings:

1) Profile of the farmers.

2) Role of radio in imparting information to the farmers.
3) Impact of radio programmes on the knowledge level of listeners of farm broadcast.

4) Association between gain in knowledge and social personal characteristics of the respondents.

5) Farmers preference for different types of radio presentation.

6) Credibility of radio as source of Farm Information.

1) Profile of the Farmers:

Genetically and phenotypically, no two human beings are alike or exactly similar in all respects in this universe. Because their behavior is constantly shaped and governed by their past experiences, socio-personal make up and the environment in which they live in. Nevertheless there are also similarities among people in respect of certain characteristics which becomes distinguishing characteristics for a particular group of people. Some of the past researches have revealed few such characteristics
of the farm radio listeners which are presented as under:

**Age:**

Ziebrath (1948) in his study in USA found that adults under 40 years listened much more than those over than 40.

Myren (1956) from his study in Wisconsin State reported that radio owners were found equally among all age groups. Similar findings were reported in the studies of Siddaramaiah (1971) from Bangalore and John Knight and Singh (1975) from Coimbatore.

Roy et al. (1969) reported that younger respondents are more ready to use mass media (radio and newspapers).

Sandhu (1970) reported that radio commanded a universal audience in terms of age. However, majority of the listener farmers (57.7 per cent) of the farm radio programmes were within the age group of 31-50 age.

Singh (1972) reported that maximum percentage of listeners (56 per cent) and non-listeners (46 per cent) of the farm broadcasts had 32 to 56 years of age.
Shakya (1973) reported that young farmers were found to be superior to adult farmers in listening to radio in Nepal.

Sabarathnam and Rajaram (1975) found that farm broadcast has influenced middle aged (26 to 45 years) respondents than young (below 25 years) and old aged farmers (46 years and above) in Madhurai district, Tamil Nadu state.

Vijayaraghavan (1978) reported that progressive farmer discussion groups (FDGS) members were younger (26-29 years) than non-progressive farmer discussion groups members (34-37 years) which indicates that younger farmer better is the communication behaviour. So far listening to radio broadcasts is concerned.

However, Badarinarayana (1977) reported that the farm broadcast listening small farmers had not differed in age from the non-listeners.

A study conducted by Tamilnadu Agriculture University, Coimbatore (1978) on Farm-School-on-the-Air programme revealed that maximum number of listeners (51 per cent) were of young age group (less than 30 years).

Audience Research Unit (ARU) of All India Radio
Delhi (1979) conducted a study on Farm-School-on-the-Air programme and found that over half of the participant farmers were below 30 years of age.

Chandrakanandan (1981) in Tamil Nadu conducted a study and reported that most of the farmers registered for (Farm-School-on-the-Air) programme were young in age.

Joshi (1985) reported that over half of the registered farmers were younger in age, 42 per cent were middle aged and only 7 per cent were older in age.

Chandra Mouli (1987) revealed that more than two-thirds (66 per cent) were in the age between 15-34 years. However it is gratifying to note that there were respondents belonging to all ages.

Pramila (1989) reported that farmers who fall in the age group of 30-40 years constitute the largest group representing about 30 per cent remaining the three categories, the number of respondents in the age group of below 30, 40-50 and above 50 were more or less equal.

Chandra Mouli (1990) from his study in Dharawad District of Karnataka State, reported that Farm Radio Lessons listeners were found among all age groups. However relatively more respondents i.e.,
40 per cent were less than 20 years. 22 per cent between 21-25 years. This clearly indicated that the registered listeners were mostly young age group.

Badari (1991) reported that nearly one-third of the respondents were in the age group 25-29 and about one-fifth in the age group 30-34. The registered listeners were slightly older. Their average age being 30.5 compared to 28.5 for the unregistered listeners.

A study by the Indian Institute of Mass Communication (1993) reported that most of the farmers were in the middle age group of 30-49 years.

Education:

Listening behaviour of the farmers in relation to their level of education has been reported in a few studies:

Ziebrath (1948) in his study in USA found that highly educated farmers tended to depend less upon radio for farm information than those with relatively less educational status. Among the farm population, those with college
Jaccard and Sabrasky (1949) in their study in Kansas State reported that representatives of all educational levels were listening to radio.

Myren (1956) in his study in Wisconsin State reported that radio owners were found equally among all educational groups.

Dhaliwal and Sohal (1967) from their study in Punjab State, reported that the educational level seems to be positively correlated with the possession of radio set and the period of its ownership. The higher education of the family greater is the probability that it will have a radio set and that for a relatively longer period than the family with lower education. Similar findings were reported from the studies of NEW ERA (1974) John Knight and Singh (1975) and Badarinarayan (1977).

Sandu (1970) observed that radio listener farmers varied among themselves in education but the medium education level was primary. Similar findings was reported by Almageer (1970) Shakya (1973) John Knight and Singh (1975) and Munegouda (1978).
Dhadhal (1973) reported that the literate farmers heard the radio rural forum programmes more regularly than the illiterate ones.

Educational status of the farmers has also been reported to have significant and positive relationship with knowledge level and other characteristics. For instance, the study conducted by Ramakrishnan (1974) revealed that educational status of the members of farmers' discussion groups had shown positively significant relationship with their knowledge level.

Sabarathnam and Rajaram (1975) found that among the different educational categories, a large number of respondents who have studied up to high-school have become aware of improved agricultural practices (62.95 percent) followed by respondents who can read only (42.85 per cent) in Madurai District.

Pandey and Roy (1977) identified that gain in knowledge and its retention after 15 days and 30 days of broadcast in all the four educational groups viz., illiterate, primary, middle and high school, were highly significant. It was also evident that farmers of high school education
groups gained more knowledge than lower educational groups.

Annamalai (1979) reported that education showed a positive and significant correlation with the utilization of farm information resources.

Chandrakanandann (1981) in Tamil Nadu reported that the farmers registered for Farm-School-on-the-Air programme were highly educated.

Sekar (1982) in his study in Tamil Nadu observed that majority of respondents (75 per cent) possessed medium level of awareness about farm broadcast programmes and it was found positively related with educational status.

Joshi (1985) in his study in Maharashtra observed that among the different educational categories a majority of them (62 per cent) were at high school level followed by listeners with collegiate education and having elementary education.

Chandra Mouli (1987) found that those with SSLC (31 per cent) constituted a relatively larger proportion of respondents. Undergraduates were around 25 per cent and graduates slightly more than 21 per cent.
Pramila (1989) reported that a little over one-fourth of the farmers (26.25 per cent) were illiterate followed by 25.66 per cent primary school level. Farmers who have attended middle school and high-school were almost equal.

Chandra Mouli (1990) found that among the different educational categories a large number (75 per cent) of the respondents were either SSLC or above. In precise terms 34 per cent were Metric, 32 per cent were under-graduate and 9 per cent were graduates. 25 per cent were below SSLC.

Badari (1991) in his study in Karnataka state found that the registered listeners had 4.2 years of schooling, on an average, compared to 3.9 years for the unregistered listeners. About one-third of the respondents of each group were illiterates. About one-fourth of the respondents had 5-7 years of schooling and another one-fourth had 8 years of schooling or above.

A study by the Indian Institute of Mass Communication (1993) revealed that a majority of the farm radio listeners have acquired primary, middle school education except in Tamil nadu where
the majority of them had high school or more education.

On the basis of the above studies, it can be concluded that farmers with some education were the best listeners.

Family size:

Moulik and Lokhande (1970) concluded that as compared to the radio owners, 66 per cent of the non-owner families had more than 5 members and 34 per cent had 5 or less members indicating that the large size families have a greater tendency to own radio sets as compared to small size families in Delhi territory.

Shakya (1973) observed that family type and size had positively influenced farm radio listening behaviour of radio owning adult farmers in Nepal.

Seetharamu (1979) reported that media treatments and control did not differ in their effects on knowledge attitude and symbolic adoption of dairy farmers belonging to different categories of family size.

Shashidharamurthy (1979) reported that there was no differential influence of media treatments
on knowledge and attitude of farmers having varying family size.

Srishkumar (1979) observed that family size of the respondents had not influenced the effects of the media combinations in increasing knowledge and attitude.

Suryaprakash (1979) found that family size of the respondents had no influence on the effects of media treatments in terms of increasing knowledge, attitude and symbolic adoption.

Land holding:

Lionberger (1960) reported that size of land holding had significant influence on knowledge level of farmer through farm broadcast due to cumulative influence of personal and situational factor in Iowa.

Sandhu (1970) reported that in Punjab the audience of farm broadcasts had high socio-economic status and relatively larger farms.

Bhardwaj (1970) stated that gain in knowledge from listening to radio varied with size of land holding and farming experience in Hyderabad district.
Moulik and Lokhande (1970) found that the difference between the radio owners and non-owners among the rural families in relation to their land size seems negligible in Delhi territory.

Siddaramaiah (1971) in his study in Bangalore identified that there was significant association between the farmers' size of land holding and their ownership of radio. More radio owners were found among the farmers of large size of land holding than among the farmers of small and medium land holding.

Patel (1976) found that the members and conveners of effective 'Charcha Mandals' did not differ significantly with non-effective 'Charcha Mandals' with respect to their land holdings.

Patel and Ekpere (1978) in their study conducted in Nigeria found that farmers with large or small land holdings listened equally to the radio programmes.

But Farm-School-on-the-Air programme seems to have attracted smaller farmers more than the bigger ones. A study conducted at Tamil Nadu Agricultural University (1978) reported that a majority of the (Farm-School-on-the-Air) programme
listeners (63 per cent) owned either small or medium sized land holdings.

Similarly, a study conducted by All India Radio Delhi (Audience Research Unit 1979) revealed that half of the respondents possessed cultivable land holdings of less than 10 acres.

Rajamani (1961) reported that the members of progressive and less progressive Farmers discussion groups do not differ significantly with respect to their land holdings.

Joshi (1985) identified that a majority (63 per cent) of the farm radio listeners, owned either small or medium sized land holding only 31 per cent of the listeners had large holding of more than 10 acres.

Pramila (1989) observed that nearly one-third (24.46 per cent) of the respondents were in the land holding group of below 3 acres, followed by 22 per cent 3-6 acres. Almost the same number of respondents of about 12 per cent were in land holding category of between 6-9 and 9-12 acres. Similarly in land holding category between 12-15, 15-18 there were 5.90 per cent respondents and 24-27 and 27-30 acres there are 1.18 per cent.
Chandra Mouli (1990) in his study entitled "Agricultural Produce Marketing – A Radio Lesson Series" revealed that the size of landholdings among the respondents varies from less than 2 acres to 20 acres and more. However, relatively more respondents i.e., 30 per cent had lands between 3 to 5 acres, 25 per cent had 6-10 acres, 15 per cent 11-20 acres and 12 per cent of the respondents owned 20 or more acres of land. It is worth noting that about 6 per cent of the respondents did not have any lands.

A study by the Indian Institute of Mass Communication (1993) found that most of the farmers own agricultural land which is less than two hectares i.e., five acres. Thus they fall under the category of marginal and small farmers.

Economic Status:

Jaccard and Sabrasky (1949) found that representatives of all income groups were listening to radio in Kansas state of USA.

Roy et al (1968) reported that respondents with higher level of living were more apt to use mass media including radio in Hyderabad.
Sandu (1970) found that there was significant positive relationship between the economic status and listening behaviour of radio owning farmers of Punjab.

Sharma and Dey (1970) stated that radio listening farmers with high economic status gained and retained higher amount of knowledge than those of medium and lower economic status in respect of know your fertilizer in Delhi territory.

Yacaub (1973) in his study in two district of West Pakistan found that participation in radio forum was positively correlated with farm income of the respondents.

UKPO (1974) observed that awareness of the programme was directly related to higher income of the respondents in Nigeria.

Amunugama (1982) in his study found that the number of radio sets available in the village studies were so few, and ownership was so clearly related to high economic status, that the impact of broadcast messages on the total village ideology could not be readily analyzed.

Although representatives of all socio-economic status were listening to the farm programmes
farmers with high socio-economic status owned more radio and were more apt to use mass media.

Pramila (1989) found that a majority (51.62 per cent) of farmers belong to the income group of below 5,000 followed by 27.14 per cent having income of Rs. between 5-10 thousand, 9.73 per cent having income of Rs. between 10 to 15 thousand.

Social Participation:

Thakur et al (1964) found that the high family educated agriculturists listened to the radio for village programme and news, while the educated professionals wanted the radio for news and music programme in Hyderabad.

Singh and Sandhu (1971) in their studies in Punjab found that farmers had high socio-economic status low social participation, high closeness with extension workers low closeness with Punjab Agricultural Scientists, medium participation in extension activities.

Singh (1972) and Badarinarayana (1977) in their studies observed significantly superior social participation in listeners than non-listeners.
Sakya (1973) found that farm broadcasts listening behaviour of radio owning farmers were found to be significantly related to closeness with extension workers while that of adult farmers was positively correlated with education, social participation, closeness with extension workers and participation in extension activities.

According to Soni (1974) only a little less than half of the radio listener farmers included in his study were members of co-operative societies and a greater number of the members of charcha mandals were found to be the members of some formal organizations.

Dave (1975) also reported that a greater number of the members of Farmer's discussion groups were found to be members of some other organization too.

However, Patel (1976) in his study reported that the members of effective 'Charcha Mandals did not differ significantly from those of the non-effective charcha mandals with respect to their social participation which indicates that the membership of some social organizations does not add to the effectiveness of 'Charcha Mandals.
In report of Farm-School-on-the-Air programme, a study was conducted by Tamil nadu Agricultural University (1978) revealed that social participation and contact extension agencies were found to influence the listening behaviour of the farmers registered for (Farm-School-on-the-Air) programme.

Vijayaraghavan (1978) reported that the Progressive Farmers Discussion Group members were found to have more frequent social participation than non-progressive farmers discussion group members.

Rajamani (1981) reported that the two groups of Farmers Discussion Group Members were found to differ significantly with respect to social participation indicating thereby that the members of progressive Farmers Discussion Groups had frequent social participation and higher socio-economic status than the members of non-progressive Farmers' Discussion Groups.

Joshi (1985) revealed that 30 per cent of the respondents were found to keep away from participating in any social organizations. Of the remaining, 46 per cent of the listeners were only members while 24 per cent held office in one or more organizations.
Pramila (1909) revealed that 37.46 per cent of the listeners were members of co-operative societies followed by 19.17 per cent listeners in Milk Societies, 7.96 per cent listeners in political parties.

**Cosmopoliteness:**

Rogers (1968) reported that increased exposure to the world beyond the village was likely to be reflected in more knowledge.

Seetharamu (1979) observed that media treatments and control did not differ in their effects on knowledge, attitude and symbolic adoption of dairy farmers having varying degree of cosmopoliteness.

Shashidharamurthy (1979) noted that cosmopoliteness did not influence the effects of media combinations in increasing knowledge and developing symbolic adoption.

According to Srishkumar (1979), cosmopoliteness characteristic of respondents did not influence the effects of the media treatments in increasing knowledge.

Suryaprakash (1979) observed that cosmopoliteness had significant influence on the
effects of media treatments in increasing knowledge and changing attitude of farmers.

Patil (1980) revealed that there was no association between degree of cosmopolitaness and gain in knowledge as a result of radio broadcast.

Narasaraj (1981) reported that cosmopolitaness of the respondents did not influence the effects of media treatments in terms of gain in knowledge.

Extension Contact:

Roy et al. (1968) in their study revealed that extension agency contact among the respondents were positively and significantly related.

Sandhu (1970) found that closeness with extension agency was positively related to the farm broadcast listening behaviour among the radio owning farmers. Similar findings were reported by Shakya (1973) from his study in Nepal and by Badarinarayan (1977) from Tamil Nadu.

Jalihal and Srinivasamurthy (1974) from their study in Karnataka reported that most of the radio owner farmers including the regular listeners did not participate in extension activities. Extension participation in rural Dharawar district was slightly better than in Bangalore rural district.
Joshi (1985) conducted a study in Maharashtra reported that majority of the listeners (54 per cent) reported to have low contact with extension agencies while 32 per cent reported medium contact and 14 per cent reported higher contact.

Pramila (1989) revealed that most of the farmers did not participate in extension activities and extension participation.

A study by the Indian Institute of Mass Communication (1993) reported that a majority of the farmers depend on the village level functionary of Agriculture Department is the main and most popular source of information for agricultural inputs.

**Media Participation:**

Pye (1963) pointed out that those who read newspapers also tend to be heaviest consumer of movies, broadcasts and all other media products.

Learner (1964) revealed that media participation in a number of countries exhibits a centripetal tendency, those who read newspapers also tend to be the heaviest consumer of broadcast and all other media products.
Rogers (1965) in his Colombian study found that correlation between formal education and mass media exposure was even higher than the correlation between functional literacy and mass media exposure. There was a positive correlation between education and mass media exposure. Until peasants literate, they cannot have print mass media exposure, expect through and oral reader. Generally literates have more mass media exposure, both print and electronic, than illiterates.

Roy et al (1968) in their study in Hyderabad reported that respondents with higher level of living were more apt to use mass media, including radio.

Sandhu (1970) in his study in Punjab found that listeners were significantly superior in mass media exposure to non listeners.

Veerabhadrayya (1971) in their study at Dharawad revealed that mass media sources such as newspaper (36 per cent) and radio (33 per cent) have been utilized to a very large extent by the respondents in addition to informal sources like progressive farmers (34 per cent) Co-operative Society (34 per cent) and neighbors (29 per cent).
Singh (1972) in his study in Bihar state found that listeners and non-listeners differed significantly; listeners of farm radio broadcast had more exposure to print media than non-listeners. Shakya (1973) identified a significant positive association between mass media exposure and farm broadcast listening behaviour of both young and adult radio owning farmers in Nepal.

Jalihal and Srinivasamurthy (1974) have summarized that majority of radio owner farmers read newspapers. This characteristics was found more among rural Bangalore than in rural Dharwad. Further, they found that there was no association of newspaper reading habit with the radio listening habit for the sample of Dharwad and Bangalore. They had also reported that 80 to 90 per cent of the listeners have been able to recall the topic.

Munegowda (1978) in his study conducted in Bangalore district revealed that 50 percent of farmers owning radio sets and subscribing newspapers had listened to agricultural message broadcast through radio.

Joshi (1985) stated that exposure to mass media was found to be significantly associated with listening to farm broadcast.
Pramila (1989) reported that rural farmers had devoted more time to listen to radio.

A study by the Indian Institute of Mass Communication (1993) in an experimental study indicated that a majority of the farmers in Tamil Nadu read newspapers followed by UP, Orissa and MP and maximum exposure to films was also in Tamil Nadu (61 per cent) followed by MP (38 per cent) UP (33 per cent) and Orissa (31 per cent).

From the above studies, it could be summarized in general that there was association between some socio-personal characteristics of farmers listening behaviour.

(2) Role of Radio in Imparting Necessary Information to the Farmers:

Gallup (1948) based on the compilation of the findings on radio research in USA inferred that radio programme provide the best means and media for reaching large number of persons with educational information on agriculture and home making.

Axinn (1952) in a study conducted in USA found that 85 per cent of the farmers had listened to radio farm programmes.
Houser (1952) reporting on a Maryland study in the USA observed that radio was superior as a mass communication medium especially those to be reached were of low educational status and read little.

In a study conducted at Kansas state of the USA, Jaccard (1954) noticed that local leaders placed radio first magazines second and newspapers third, for getting information regarding agriculture.

Wilkening (1956) reported that mass media were the first sources of information in providing detailed (new technology) information to farmers.

Ibrahim (1963) in his study on "EGYPTIAN VILLAGE LIFE," reported that radio was found to be the most effective means of reaching villagers, literates and illiterates alike.

Schramm (1964) contended that it is not difficult to see why radio should be particularly useful in rural development programmes. It covers grew and leaps all kinds of natural barriers. It is swift in reaching listeners. It is the cheapest of the major media in production and reception can also be inexpensive.
Learner (1964) from his study in the Middle East countries, observed that media participation in a number of countries exhibits a centripetal tendency, those who read newspapers also tends to be the heaviest consumer of broadcast and all other media products.

Ziche (1964) stated that the radio and the press are among the forces which strongly influence public opinion today. This includes agriculture as well as other sectors.

Bhardwaj (1965) in his study found that farm broadcasting, through radio was one of the powerful media of communication. Similar findings have been reported from the studies of Dube (1967), Dey (1968), Kishore (1968), Sandhu (1970), Sharma & Dey (1970), Supe (1971), Singh and Prasad (1974), Somasundarm and Singh (1978) and Sundareshan (1978) in Indian situation.

Hatch (1966) has highlighted that radio had become a very powerful communication medium in USA. Knowledge has been increased, attitude had been changed and skills has been improved due to radio listening. He further stated that people would believe what they would hear on radio as much as confidence as what they would read in print media.
Wilson and Gallup (1967) indicated that 60 percent of the country extension workers and 87 percent of the state subject matter specialists utilized radio and also 93 percent of farm families and 98 percent of other families possessed radio sets.

Klonglan (1968) in a project of farm radio listening groups on agriculture concluded that the programme was very important for improving Malawi agriculture but on the basis of coverage it would take 30-40 years to reach all the potential adopters.

An Indian study reported by Roy et al (1969) stated that radio-forums had brought change in the variables, such as exposure to mass media, empathy, social participation, change agent contact etc.

The survey conducted by Moulik and Lokhande (1970) among 120 households in Delhi city and 200 in Delhi villages revealed that in the rural households 62 percent owned radio sets while 58 percent owned transistor sets. In the case of urban house holds also the picture is not different with 65 per cent owning transistor sets.
Singh and Sandu (1971) reported that 14.21 percent families in the selected villages owned a radio. There were 16.52 percent of farming families owning radio sets as against 9.54 percent of non-farming families. There were on an average 24.58 radio sets per village.

Felt (1971) from his study in southern Brazil, reported that radio use does not require literacy and low cost transfer models have put this medium within the reach of farmers.

Rogers and Shoemaker (1971) revealed that mass media like radio are the important means to create awareness and interest with respect to innovations.

Poucher (1971) revealed that broadcasting can perform a major service in helping agriculture recruit and train our agricultural leaders, scientists and educators for tomorrow.

Johan's (1971) study revealed that high use of mass media was quite definitely accompanied by higher knowledge level in southernmost states in Brazil.

Siddaramaiah et al (1973) reported that the percentage of radio listening to 'Krishiranga' programme was higher than the percentage of radio
owners listening to "Hints to farmers" programme.

Colle (1974) indicated that in Guatemala, radio school was successful in communicating considerable information regarding improved health and agricultural practices, but it had less success in getting the information actually put to use unless there is an accompanying action programme such as rural housewives club.

Muthiah et al. (1975) stated that use of radio effected significant influence in the adoption of high yielding varieties of paddy when compared to use of other visual media of communication.

Gangappa (1975) stated that even the small farmers of Mysore district attached 5th rank to radio as a source of information out of 15 sources presented to them.

Singh et al. (1976) revealed that small farmers, who made use of mass media such as radio had developed their personality characteristics such as market orientation, aspiration level etc., as of the big farmers.

Hilbrink (1976) opined that radio can create awareness and stimulate a sense of involvement; but
at the other stages of development process, especially at the crucial stage of adopting innovation by the rural people the role of radio is less effective.

Hiriyannayya (1977) found that out of the seven sources of information radio has received second rank in respect of source of information by the graduate and educated farmers.

Mahadevaswami (1978) from a study in Bangalore district observed that radio as the fifth source of information consulted out of 12 sources.

A study by AIR Bangalore (1979) stated that out of 300 respondents interviewed, 80 percent were aware that AIR, Bangalore station beamed a series of lessons on dairying in the "Farm school on Air" programme.

Patil (1980) in a study conducted in Bijapur district of Karnataka State has brought to light that amongst ten sources of information small farmers have accorded fifth rank to radio compared to other farmers who have accorded second rank.

David (1981) revealed that radio has continuously attracted considerable attention from national development planners because of its potential in helping to solve some of the problems
of developing countries. Radio does not only possess intrinsic characteristics of speech, extrinsic portability and feasibility that give it a comparative advantage over the other mass media, it also performs a great efficiency in the information, education and entertainment functions.

Upadhyay and Hansra (1982) in a study conducted at Nepal, reported that about 86.46 per cent of the respondents considered the agricultural broadcasts are "very much useful" to them.

Perraton (1982) in his study in Malawi inferred that radio appeared to be an important source of information for a considerable number of farmers and already reaches some 30 percent of them directly. In terms of cost involvement, he stated that the mobile van was 44 times as expensive as radio, while extension agents cost 55-80 times as much as the mobile unit, extension services are 2000-3500 times as expensive as radio.

Amungama (1982) observed that the audience of sound broadcasting is increasing very rapidly in Asia and this has been brought about largely by the advent of the cheap transistors, given the severe constraints of finance and resources in many
Asian countries, radio appears to be the most appropriate medium to reach the region's rural poor.

Joshi (1985) from his study in Maharashtra State reported that radio owners found equally among all income, education, size of land holding, extension contact and age group.

Rakoty and Hazarik (1987) found that adoption of recommended practices by the tribal and non-tribal dairy farmers proved beyond doubt that radio has an impact.

Chandra Mouli (1987) reported that majority of the respondents have stated that they had gained knowledge on the uses of roots, and how forest wealth is responsible for rainfall.

Pramila (1989) stated that agricultural broadcast of All India Radio had proved beyond any doubt as a secondary source of agricultural information in the villages of Dharwad district of Karnataka State.

Chandra Mouli (1990), reported in a study that according to the respondents radio has been helpful to them in knowing the present day market situation. This view has been shared by 48 per cent of the respondents. About 35 per cent have said that they could learn a great deal about the
improved methods of cultivation from Radio. Between 4 to 6 per cent of the farmers have said that radio has been useful in giving tips on how to store the crops, and in giving weather forecasts.

Badari (1991) reported that the favourable impact of the programme is evident, the average marks obtained by the registered listeners were more than those obtained by the unregistered listeners for each category of age and education.

A study by the Indian Institute of Mass Communication (1993) noted that a large number of farmers (94 per cent in Tamil Nadu) were exposed to radio. The reach of radio was more among contact farmers in comparison to non-contact farmers in all the states except Tamil Nadu where more non-contact farmers listen to radio.

The studies reviewed in this section have indicated that radio communication is an important means to reach large number of farmers and to provide necessary agricultural information for the farmers. Some specific studies have revealed that radio ranked first in providing agricultural information. The review has also clearly revealed that information through radio broadcasts had brought about the behavioral
changes among the farmers. Thus the research
evidences cited above have identified the great
potentialities of radio in bringing about
favourable changes among farmers.

3) Impact of Farm Radio Programmes
on the Knowledge Level of Listeners:

This section deals with the findings of
various researches conducted in India and abroad
with respect to impact of farm broadcasts on
acquisition of knowledge by the farmers.

Cris, Merrill and Nesset (1945) reported that
though all age-groups heard the farm radio
programme, yet those from 40-49 years of age
carried out more action recommended on the radio.

In their study Lasarsfeld and Field
(1946) found two-thirds of the people saying that
radio added to their knowledge. Thirty percent
said that they obtained practical information. They
further found that education was directly
correlated to the gain in knowledge.

Ziebarth (1948) reported that for farm
information (knowledge) highly educated farmers
tended to depend less upon radio than those with
relatively low education status. Among the farm
population those with college education provided the greatest percentage of listeners. Adults under 40 listened much more than those over 40 years.

Jaccard and Sabrosky (1949) reported that 26 percent families were able to absorb the improved practices which had been broadcast over the radio.

Dayton et al (1950) reported that 8 out of 10 farmers say that they have incorporated some of the ideas in their work.

Putnam (1952) found that four out of five listeners remembered one or more subjects that were discussed during the six months prior to the interview.

Mathur and Paul Neurath (1959) while reporting an experimental study on Farm Radio Forum in India, observed that Radio Forum as an agent of transmission of knowledge, has proved to be successful beyond expectation. Increase in knowledge between pre and post-broadcast was significant, whereas in the non Forum villages it was not significant.

Lionberger (1960) reported that radio was supplier of information primarily at the
awareness and information stages. Evidence also indicates that a given source frequently performs other functions as well. In a number of cases radio has performed a legitimatizing or 'okay ing' functions important at the evaluation, trial and final adoption stages in Iowa state.

Winfield and Heartman (1961) in an experimental study conducted in respect of a health broadcast in south Korea, found that almost every one had learnt after broadcast about the topic the way in which some of the diseases were transmitted.

Menfee and Menfee (1964) in their experimental study in Mysore state, reported that the impact of mass communication was greatest when the newspaper was combined with Radio Forum discussions and this was particularly so in respect of knowledge of farmers.

A study by Kenward in USA (1965) revealed that there was a significant gain of subject matter knowledge after listening to the radio farm programmes. He also noted that the listeners seemed to realize a greater knowledge gain from the information that would be of use in actual implementation of a farm practice than the information of general nature.
Spalito (1966) stated that three of the eight main ways, the mass communication can be used are: (1) to modify certain attitudes that might impede or damage social and economic development, (2) to increase expectations for certain facts or situations (3) to act in the motivation of the individuals.

Schramm (1968) concluded that persons who sat in the Radio Forums gained an average of almost six points, whereas control groups of those who were not in the forum showed only a slight gain of about one point in India.

Alamgeer (1970) found that regular listeners of farm broadcast had a significantly higher percentage of adoption in Coimbatore.

Sharma and Kishore (1970) revealed that radio was an effective communication medium in bringing significant changes in knowledge and attitude. They also reported that farmers of various socio-economic status also significantly retained the knowledge, even after 15 days and 30 days of broadcast.

Jain (1971) observed that the groups which were subjected to listening and discussion had exhibited
greater changes in the knowledge, belief, attitudes and adoption in Indian Radio forums.

Siddaramaiah (1971) from an experimental study, reported that the respondents benchmark knowledge mean score of 41.60 had significantly increased to a mean score of 62.76 immediately after the farm broadcasts.

Pool (1972) pointed out that mass media do not lead to adoption directly but creates an awareness of the existing new practice.

Palled (1972) in his study on Impact of farmers training, Functional literacy and Farm broadcast programme confirmed that there was significant gain in knowledge owing to farm broadcast listening.

Prasad and Singh (1974) indicated that there had been increase in knowledge immediately after the broadcast in form of a straight talk interview and discussions. Interview mode of presentation was distinctly more effective over straight talk. It was also found that interview with farmers was effective in increasing the knowledge immediately after broadcast.

Muthiah et al (1975) identified that use of radio effected significant influence in the adoption of high yielding varieties of paddy when...
compared to use of other visual media of communication (that is use of literature and visual material). Further, they reported that through the farm broadcast caused awareness among 12.21 percent of the farmers about the high yielding varieties of paddy, only 7.38 per cent of the farmers were influenced by the broadcast to adopt the practice in Tamil Nadu.

A study conducted by All India Radio Hyderabad (1975) revealed that the broadcast of Farm-School-on-the-Air programme have helped the cultivators in adopting scientific practices of paddy cultivation.

Pandey and Kailash (1976) reported that among the three groups selected for experimental treatments viz, interview, discussion and informal dialogue, the group which was exposed to the interview method had gained more knowledge and retention than other two modes of broadcasts.

Pandey and Roy (1977) brought into focus that straight talk, interview and discussion modes of presentation were found highly significant in enhancing the knowledge level of participants. It was also revealed that discussion was the effective mode of presentation for gain in knowledge immediately after broadcast and also
Patel and Ekpere (1978) observed that the influence of radio listening was significant in increasing knowledge on improved farm practices, but that of age and education was not significant in Nigeria.

Munegouda (1978) reported that the combination of radio and newspaper was found to influence the overall knowledge of farmers significantly better than radio and newspaper alone in Bangalore district.

A study by AIR Bangalore (1979) revealed that 96 per cent of the respondents interviewed to know the influence of the radio lessons programme (Farm-School-on-the-Air) on dairying indicated that the lessons were very useful in increasing the knowledge and adopting the improved methods for better milk production.

Patil (1980) in his experimental study on radio broadcast in Dharawad, Karnataka state revealed that there was positive but non-significant correlation between the knowledge gained and the consequent adoption behavior of the respondents as a result of their participation in the radio lesson programme.
Rajamani (1981) studied the impact of farm broadcasts on two organized groups of listeners in Coimbatore district and found that farmers registered for Farm-School-on-the-Air programme had acquired significantly higher level of knowledge about the improved technology of coconut farming than the knowledge acquired by the Progressive Farmer Discussion Groups members. As per as adoption of the technology is concerned there was no difference in between these two groups of farmers.

Desai (1981) found that as the number of communication media use increased, the percentage increase in mean level of awareness, knowledge, symbolic and use adoption was also increased in Belgaum taluk.

Joshi (1985) reported that majority of the respondents have used improved practices in their poultry keeping after hearing about them through the Farm-School-on-the-Air programme.

Rakoty and Hazarik (1987) reported that the base line knowledge concerning improved dairy farming practices of the tribal and non-tribal dairy farmers was poor. The broadcast of improved practices helped the tribal as well as non-tribal dairy farmers to gain knowledge over the
base line knowledge of the recommended practices and influenced on the adoption behavior of both the categories of farmers.

Chandra Mouli (1987) found that there was significant gain in knowledge after listening to the "Nisarg Sampad-Social Forestry and Nature Education Radio Lessons" in Karnataka State.

Chandrakanadan and John Knight (1988) revealed that about one-fourth (27.78 per cent) of the subjects were found to have acquired the skill perfectly and fully owing to their exposure to broadcast.

Pramila (1989) found that the impact of radio with respect various other sources, the findings showed that influence of radio was relatively limited when compared to inter-personal communication.

Chandra Mouli (1990) revealed that 45 per cent of the respondents took their produce to the market after listening to the lessons, out of them about 36 per cent of the respondents held the opinion that, since listening to the lessons they had now gained enough knowledge in marketing their produce.
Badari (1991) found that the registered listeners secured higher average marks than the unregistered listeners in each subject. The difference between the two is highly significant.

The research studies reviewed above prove that a significant increase in the knowledge level of the respondents had occurred due to farm radio communication.

4) **Association Between Gain in Knowledge and Socio-Personal Characteristics of the Respondents:**

This section deals with the findings of various researches with respect to association between gain in knowledge and personal characteristics of the Farm Radio Listeners.

Crils, Morrill and Nesset (1945) reported that though all age-groups heard the Country Agents programme, yet those from 40-49 years of age carried out more action recommended on the radio.

In a study Lasarsfeld and Field (1946) stated that two-thirds of the people accepted saying that radio added to their knowledge. Thirty percent said that they obtained practical information. They further found that education was directly correlated to the gain in knowledge.
Ziebarth (1948) reported that for farm information (knowledge) highly educated farmers tended to depend less upon radio than those with relatively low education status. Among the farm population those with college education provided the greatest percentage of listeners. Adults under 40 listened much more than those over 40 years.

Jaccard and Sabrosky (1949) reported that 26 per cent families were able to absorb improved practices which had been broadcast over the radio.

Dayton et al (1950) reported that 8 out of 10 farmers who listened farm broadcast say that they have incorporated some of the ideas in their work.

Putnum (1952) found that 4 out of 5 listeners remembered one or more subjects that were discussed during the six months prior to the interview.

Myren (1956) reported form a study in Wisconsin that radio owners were that found equally among all income, education and age groups.

Mathur and Neurath (1959) reported that Radio Farm Forum as an agent for transmission of knowledge has proved to be a success beyond expectation. Increase in knowledge in the forum
villages between pre and post-broadcasts was spectacular, whereas in the non-forum village, it was negligible. What little gain there was occurred mostly in the non-forum villages with radio. This increase in knowledge was equally impressive for many sub groups such as leaders and other villagers, agriculturists and non-agriculturists literates and illiterates.

Hatch (1966) stated that in the adoption of new ideas, mass media, including radio would rank number one at awareness and interest stages. In the later stages, he added that it would go to the bottom in effectiveness but this did not, however, mean that radio should not be used in later stages of adoption.

Singh and Akhouri (1966) in an investigation on the knowledge gain by exposing the farmers to different extension teaching methods, indicated that there was no significant relationship between education, land holding and knowledge gained by the respondents.

In his study Dey (1968) reported that farmers between 30-39 years gained and retained highest amount of knowledge from radio listening. He had found that gain and retention of knowledge from radio was independent of economic status.
Roy (1969) studied the impact of communication on rural development and found that changes in knowledge about health and agricultural innovations is more significant for the participants of all age group in radio forum than control group.

Sharma and Dey (1970) found in Delhi territory that respondents between 30 and 39 years of age as well as those with higher education had gained and retained more knowledge in case of all the programmes on both television and radio. In case of radio listeners, farmers with high economic status gained and retained higher amount of knowledge than those of medium and lower economic status.

In a study conducted by Parthasarathy (1971) in Tamil Nadu on Radio Rural forum members it was revealed that young adult group (25 years and below of age); the group with no education (collegiate education); The group having agriculture as primary occupation; the group with high income; the group with small land holdings (less than 7 acres) and the group with less than 10 years of farming experience felt that radio helped a great deal to increase their knowledge. The age, education and farming experience of the respondents were reported to be positively related to the increase in knowledge through radio.
Siddaramaiah (1971) revealed that there was no significant association between personal characteristics such as age, education, and intelligence and gain in knowledge as a result of radio broadcast. He thus observed that farm broadcasting was equally an effective method of educating farmers of different characteristics and abilities.

Singh (1972) in his study found that variation in the knowledge gained and retained due to different socio-economic status groups was not significant.

Sinha (1972) indicated that, farmers with high need for achievement motivation and high change proveness, gained greater amount of information than others. Formal education level failed to show any significant association with their acquisitions of information.

Yacub (1973) in a survey among 150 respondents in two districts of west Pakistan indicated that participation in radio forums was positively correlated with education level, farm size, farm income, membership in the organization and exposure to city life. Age and land tenure had no effect. Forum members knew about new irrigational practice
and adopted them or more easily, and participated in more extension activities than the non-members.

Starosta (1973) in a study on the information acquisition pattern in three villages of Sri Lanka found that age of the respondents or his occupation did not interact with information acquisition pattern. Channels of information acquisition consisted of radio, films and newspaper.

UKPO (1974) in a study on the role of Mass Communication in the success or failure of information diffusion on family planning and population control in Nigeria found that awareness of the programme was directly related to higher income, higher levels of education and young age.

John Knight and Singh (1975b) revealed that the majority were listening to programme irrespective of their age. There was greater regularity in listening as education increased, the period of listening also increased; and the study also indicated positive correlation between the gain in knowledge and contact with extension agency in respect of interview modes of presentation.
Sabarathanam and Rajaram (1975) from a study conducted in Madurai District to know the characteristics of radio listening farmers revealed that majority (72-73 percent) of the listeners were middle aged and educated up to primary schools. Most of the listeners belonged to backward castes owned below five acres and had participated in only one organization; and also a study conducted to find out the relationship of certain socio-economic characteristics like age, education, farm size, ownership as radio and farm broadcast, listening habits with the adoption of improved agricultural practices influenced by farm broadcast, reveals that 4 to 22 percent of old aged respondents have adopted improved practices compared to others. More respondents who were able to read only adopted improved agricultural practices than other farmers (7 to 22 percent). Similarly, medium sized land owners (21 to 22 percent) adopted improved agricultural practices as influenced by farm broadcast.

Sandhu and Darbarilal (1976) reported that, in Punjab, age and farm size were not related to communication behaviour of farmers as those of education social participation and socio-economic status.
Panday and Roy (1977) from a study reported that gain in knowledge and its retention after 15 days and 30 days of broadcast in all the four educational groups viz., illiterate, primary, middle and high school were highly significant. It is also evident that farmers of high education groups gained more knowledge than lower educational groups. Discussion type of presentation was the most effective mode of presentation for gain in knowledge in case of all the three age groups viz., young, middle and old.

Sundareshan (1978) in an experimental study in Belgaum District of Karnataka State, found that there was no association between the personal characteristics of the respondents, such as age, education level, land holding, income status, degree of extension contact/participation, level of social participation, mass media participation and gain in knowledge as a result of radio broadcast.

AIR, Bangalore (1979) in its survey report on the evaluation of (Farm-School-on-the-Air) for dairy farmers indicated that the majority of the respondents i.e., 83.3 per cent who were aware of the radio lessons on dairying belonged to lower age group of 16-30 years. Further, it is revealed that the farmers who listened 10-20 lessons on dairying over AIR,
Bangalore a large majority of them i.e., 45.2 per cent were illiterate followed by graduate (35.4 per cent), SSLC (88.6 per cent) and below SSLC (28 per cent).

Gangadharappa (1979) reported that gain in knowledge due to listening to farm broadcast had no significant association with personal characteristics of farmers such as age, land holding, economic status, extension contact, extension participation, social participation, mass media participation and cosmopolitaness as a result of farm broadcast.

Patil (1980) in his study on radio lessons in Dharawad district of Karnataka State found that there was no association between eight personal characteristics of the respondents such as age, education, land holding, extension participation, extension contact, social participation and cosmopolitaness.

Sekar (1982) in his study in Tamil Nadu observed that majority of respondents (75 per cent) possessed medium level of awareness about farm broadcast programmes and it was found positively related with educational status.
Siddaramaiah and Rajanna (1984) in an experimental study, reported that farmers having varying personal characteristics differ in their knowledge scores over all the treatments. It was observed that respondents belonging to younger age, higher education, larger family size, higher media participation, more extension contact and high cosmopolitaness had scored significantly higher over the other categories of farmers.

Joshi (1985) found that there was no association between the personal characteristics of the respondents, such as age, educational level, land holding, economic status, the level of social participation and mass media participation and the gain in knowledge as a result of farm radio lessons.

Rakoty and Hazarik from a study conducted (1987) in Gauhati revealed that there was no association between tribal and non-tribal dairy farmers and gain in knowledge.

Chandra Mouli (1987) observed that gain in knowledge due to radio lessons had no significant association with personal characteristics of respondents.
Pramila (1989) revealed that there was significant association between income levels of the farmers and their exposure to farm broadcast.

Chandra Mouli (1990) found that there was no significant association between personal characteristics of farmers such as age, education level, size of land holding and gain in knowledge.

Badari (1991) revealed that the average marks obtained increase with education for the registered as well as unregistered listeners. Among the registered listeners illiterates scored the lowest average marks of 52 per cent, while those with 8 years of schooling and above secured the highest average marks of 79 per cent.

A study by the Indian Institute of Mass Communication (1993) found that there was a significant association between contact farmers and non-contact farmers and gain in knowledge as a result of radio broadcast.

It could be summarized from the above studies that there was no relation between socio-personal characteristics such as age, education, land holding, size of land holding, experience in sericulture, annual income, social participation extension activities and gain in knowledge. Some
specific studies have also revealed the positive relation between the age, education, land holding status and gain in knowledge. Hence it would be very interesting to study the effect of personal characteristics on knowledge gained as a result of exposure to radio lessons on topical interest and also whether the association will be significant or otherwise.

5) Farmers Preference for Different Types of Radio Presentation:

Willis (1940) in his study with 526 eleventh and twelfth grade high school students and 89 college students, to determine the relative effectiveness of three modes of presentation, concluded that the combined form of dramatization with talk was preferred by a large majority of high school students; the dramatization was the second choice and the talk was liked least of all. In respect of college students they also gave their first choice to the combined form of presentation. However, their second preference was the talk, while the dramatization was liked by the smallest number.

Johnston and Busch (1942) found that high percentage of farmers and their wives liked a variety of voices and question and answers were
preferred. There was also great desire for talks by farm people giving their own experiences. Extemporaneous speaking was preferred to reading from a script.

Dietrich (1945) who experimented with 760 college students to find out the relative effectiveness of the dynamic and conversational modes of delivery concluded that the difference of interest in favour of the style of delivery depended upon the speaker. The interest expressed by the subjects of his study were found in favour of the conversational mode of delivery for three speakers. Similar significant differences in favour of dynamic form of presentation were found for the other three speakers.

Hanson (1946) in his research study found that the interview type of presentation was the first choice, the second being one person talking to the listeners.

Gallup (1948) based on the compilation of the findings on radio research in USA inferred that a conversational style of presentation whether one or more voices were used was the most effective methods of broadcast.
Bertrand and Hitt (1949) from their study in Louisiana state of USA revealed that the programme in which two or more person took part was the most favored.

Kishore (1970) stated that discussion mode of delivery was considered important, because in this method, a problematic situation is developed and the interest or the listener is aroused. More than one voice on the programme breaks the monotony and affords a more interesting presentation.

A study by Parthasarathy (1971) on Radio Rural Forums in Coimbatore district of Tamil Nadu it was revealed that among the several techniques adopted in the farm broadcast talks by specialists was preferred as their first choice followed by dialogue. 'success stories narrated by the farmers', interview with progressive farmers and 'VILLUPATTU' in that order of preference.

Singh (1972) in his study on listeners and non-listeners in Bihar found that, "54 per cent listeners wanted farm programmes to be delivered through discussion mode of delivery and 28 per cent were in favour of interview mode and only 12 per cent wanted lecture or straight talk type of presentation."
John Knight (1973) revealed that interview with farmers, questions answers, dialogues, interview with scientist straight talk, discussion, announcement and documentary were the listeners preferences in the order of their importance.

Singh and Sandhu (1974) in their study in Punjab state reported that the modes of presentation; (a) discussion, (b) lecture, (c) features and dramas (d) interview with farmers, (e) question answers (f) views and reviews (g) farm news were in order of preferences to the listeners.

Shakay (1975) while conducting a study on radio owning young and adult farmers in Nepal gave the following conclusion; As regards the modes of presentation of the farm radio programmes, out of the Maximum score of 4 for each mode, discussion mode secured the highest mean score of 2.88 and dramatic mode was ranked second with a mean score of 2.55. Straight talk or lecture was the least liked mode by both the young and adult farmers.

Badarinarayan (1977) reported that among different modes of presentation, straight talk was perceived as most effective by the listeners, followed by question answers, interview, discussion and folk art programmes in Tamil Nadu.
Nehru (1980) in his study in Trivandrum district, Kerala found that interview has perceived as the best mode of presentation of farm broadcast.

Chandrakanandan (1982) in his study in Tamil Nadu reported that, of the four selected modes, the form news presentation and interview were effective than the rest in respect of knowledge gain, retention of knowledge gained and symbolic adoption.

Joshi (1985) revealed that large majority of farmers preferred the interview style of presentation to the straight talk.

Chandra Mouli (1990) reported that majority of the respondents wanted information to be presented by a specialist in the form of a straight talk.

Badari (1991) reported that interview method of presentation was liked more than the straight subject-matter talks.

From the above studies reviewed it could be summarized that respondents generally preferred the types of presentation in which more than one person is involved. Hence dialogue and interview format were the types most effective to the listeners of farm broadcast.
6) **Credibility of Radio as a Source of Farm Information:**

Radio is one of the most powerful mass media for quick dissemination of agricultural information and its effectiveness has been well established by many researchers. Credibility refers to the degree of trust-worthiness and expertness accorded to a source of information by his audience at a given time. Credibility of a source is not fixed, it is flexible, with the change of time or place. Findings of various studies have been presented here.

Jaccard (1954) in his study in Barton reported that local leaders placed radio first, magazine second and newspaper third for getting information on agriculture.

Roy et al (1968) studied agricultural innovation among Indian farmers and found that out of four much-used sources radio was given fourth, that is the last place for its credibility. Demonstration, neighbour and village level worker were accorded first second and third place, respectively.

Shankariah (1969) found that in progressive village farmers ranked radio second while in non-
progressive village the farmers ranked it fifth as a source of farm information. He also revealed that radio was accorded second place for its credibility by the farmers of progressive village and fifth place by those of the non-progressive village out of seven sources of information.

Sandhu (1970) reported that in terms of the credibility placed upon radio as a source of farm information, radio was ranked third amongst seven selected sources. The first two positions went to demonstrations and university scientists respectively.

Singh (1970) found that among ten sources of information radio was ranked second in a progressive village and fourth in a non-progressive village. Village level worker was ranked first for his credibility in both the villages.

Singh (1971) found that radio was given sixth place and television fifth for their credibility. First place was accorded to demonstration. In an another study he also reported that out of ten sources of information, young farmers of a progressive village ranked radio fifth for its credibility.
Supe (1971) found that among eight sources of information radio was accorded sixth place by the farm radio listeners.

Sakya (1973) in Nepal also showed that radio owning farmers ranked it second while adult farmers ranked it at the third position regarding credibility question.

Ambasthe (1974) in his study at Delhi found that radio was at the top as far as its credibility is concerned as a source of farm information.

Gangappa (1975) stated that even the small farmers of Mysore district attached fifth rank to radio as a source of information out of 15 sources presented to them.

According to Somasundaram (1976) radio was first in order of channels utilized by both adopters and non-adopters for getting information about all the practices.

Hiriyannaiah (1977) found that out of seven sources of information, radio has received second rank in credibility by the graduate and educated farmers of Dharawad district.

Badarinarayana (1977) in his report on credibility radio ranked second among listeners and fifth among non-listeners. The first ranks being
given to demonstration by listeners and to village level workers by non-listeners.

Mahadevaswami (1978) observed that radio was the fifth source of information consulted out of 12 sources by the respondents in Bangalore district.

Ravi (1979) identified radio and newspaper as the most credible sources for farmers of Tamil Nadu.

Annamalai (1979) also reported that at awareness stage radio was utilized as farm information sources for the practices like seed treatment and fertilizer application.

Patil (1980) in a study conducted in Bijapur district has brought to light that amongst ten sources of information, small farmers have accorded fifth rank to radio compared to other farmers who have accorded second rank.

Sekar (1982) as regards to credibility reported that radio was ranked third by the extension personnel, the first two being higher official and farm journal in Tamil Nadu.

Joshi (1985) found radio as the effective source credibility utilized by the farmers in sixth position.
Chandra Mouli (1987) found that a majority of the respondents accorded radio first and newspaper second for getting information.

Pramila (1989) reported that rank of radio with other sources got comparatively lowest place with respect to five agricultural practices which have high degree of adoption.

According to Chandramouli (1990) radio was first in order of channels utilized by farmers for getting information about all the practices.

Badari (1991) measured information source credibility and found that among seven sources of information radio was accorded second place by registered respondents.

A study by the Indian Institute of Mass Communication (1993) stated that among all media, the most depended medium by non-contact farmers on agricultural information was radio followed by newspaper, TV, printed material and film.

Though the credibility of radio as a source of farm information varied according to situation it can be regarded on the whole as relatively more credible source among various sources of farm information as indicated by studies reviewed here.
HYPOTHESIS:

Based on the objectives of the study and the literature review presented so far, the hypothesis were set for this study were as follows:

Hypothesis-1: The registered farmers of Farm Radio lessons on sericulture posses more knowledge than non-registered respondents.

Hypothesis-2: The sex of the respondents has no influence on the gain in knowledge due to their participation in Farm Radio Lessons.

Hypothesis-3: Younger age group respondents gain more knowledge than older subjects is due to their participation in Farm Radio Lessons programme.

Hypothesis-4: Educational level of respondents has no influence on their gain in knowledge due to participation in Farm Radio Lessons.

Hypothesis-5: Size of the family has no influence on respondents gain in knowledge due to the participation in Farm Radio Lessons.
Hypothesis-6: Possession of land by the respondents has no influence on their gain in knowledge due to participation in Farm Radio Lessons.

Hypothesis-7: There is no relationship between size of land holding and knowledge level of respondents.

Hypothesis-8: There is no relationship between experience in sericulture and knowledge level of respondents.

Hypothesis-9: There is no relationship between annual income and knowledge level of the registered respondents.

Hypothesis-10: There is no relationship between level of social participation and knowledge level of the registered respondents.

Hypothesis-11: There is no relationship between cosmopoliteness and knowledge level of the registered respondents.

Hypothesis-12: There is no relationship between extension contact and knowledge level of the registered respondents.
Hypothesis-13: There is no relationship between extension participation and knowledge level of the registered respondents.

Hypothesis-14: There is no relationship between newspaper reading habit and knowledge level of respondents.

Hypothesis-15: There is no relationship between general magazine reading habit and knowledge level of registered respondents.

Hypothesis-16: There is no relationship between Agricultural magazine reading habit and knowledge.

Hypothesis-17: There is no relationship between T.V. viewing habit and knowledge level of the registered respondents.

Hypothesis-18: There is no relationship between cinema watching habit and knowledge level of the registered respondents.

Hypothesis-19: There is a difference in sericulture practices and extent of utilization of information due participation in Farm Radio Lessons programme.
Hypothesis-20: Dialogue and interview style of presentation is the most effective to the listeners.

Hypothesis-21: Radio is most credible source of information.