

South Dakota State University

Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange

Electronic Theses and Dissertations

1960

A Study of Educational and Promotional Programs of Certified Seed as Evaluated by Certified Seed Growers and Certification Officials

J. Duane Colburn

Follow this and additional works at: <https://openprairie.sdstate.edu/etd>

Recommended Citation

Colburn, J. Duane, "A Study of Educational and Promotional Programs of Certified Seed as Evaluated by Certified Seed Growers and Certification Officials" (1960). *Electronic Theses and Dissertations*. 2716. <https://openprairie.sdstate.edu/etd/2716>

This Thesis - Open Access is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

**A STUDY OF EDUCATIONAL AND PROMOTIONAL PROGRAMS OF
CERTIFIED SEED AS EVALUATED BY CERTIFIED SEED
GROWERS AND CERTIFICATION OFFICIALS**

BY

J. DUANE COLBURN

**A thesis submitted
in partial fulfillment of the requirements for the
degree of Master of Science, Department of
Education, South Dakota State
College of Agriculture
and Mechanic Arts**

December, 1960

SOUTH DAKOTA STATE UNIVERSITY LIBRARY

A STUDY OF EDUCATIONAL AND PROMOTIONAL PROGRAMS OF
CERTIFIED SEED AS EVALUATED BY CERTIFIED SEED
GROWERS AND CERTIFICATION OFFICIALS

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Advisor

Head of the Major Department

ACKNOWLEDGMENTS

The writer wishes to express his appreciation to Professor Stanley Sundet and Assistant Professor Hilding Gadda, both of the Education Department of South Dakota State College, Brookings, South Dakota for help and advice in the development and completion of this thesis.

JDC

TABLE OF CONTENTS

	Page
INTRODUCTION	1
PURPOSE	3
PROCEDURE	6
REVIEW OF LITERATURE	8
RESULTS OF THE STUDY	18
Response of Certification Officials	18
Response of Certified Seed Growers	59
Seed Producer Suggestions on Better Ways of Producing Certified Seed	100
SUMMARY	108
RECOMMENDATIONS	113
LITERATURE CITED	117
APPENDICES	118
A. Letter of Explanation to Certified Grower	119
B. Grower Questionnaire	120
C. Letter of Explanation to Certification Officials	124
D. Certification Officials' Questionnaire	125

LIST OF TABLES

Tables	Page
I. EDUCATIONAL BUDGETS AS REPORTED BY CERTIFICATION AGENCIES IN THE UNITED STATES BY REGIONS, 1959	19
II. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE NORTH CENTRAL REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959	22
III. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE NORTHEASTERN REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959	25
IV. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE SOUTHERN REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959	28
V. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE WESTERN REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959	31
VI. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE UNITED STATES AS REPORTED BY CERTIFICATION OFFICIALS, 1959	34
VII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE NORTH CENTRAL REGION	37

Tables	Page
VIII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE NORTHEASTERN REGION	39
IX. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE SOUTHERN REGION	41
X. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE WESTERN REGION	43
XI. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THE VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE UNITED STATES	45
XII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE NORTH CENTRAL REGION	48
XIII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE NORTHEASTERN REGION	50
XIV. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE SOUTHERN REGION	52

Tables	Page
XV. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE WESTERN REGION	54
XVI. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE UNITED STATES	56
XVII. PER CENT OF CERTIFIED SEED GROWERS WHO FEEL THAT CERTIFIED SEED IS ACTIVELY PROMOTED IN THEIR AREAS BY EXTENSION PERSONNEL AND PRIVATE SEED DEALERS	60
XVIII. SENTIMENTS OF CERTIFIED SEED GROWERS CONCERNING THEIR NEIGHBORS' INFORMATION ON MERITS OF CERTIFIED SEED ACCORDING TO REGION	62
XIX. THE EFFORTS OF AGRICULTURAL EXTENSION AGENTS AND VOCATIONAL AGRICULTURE INSTRUCTORS REGARDING ENCOURAGEMENT TO GROWERS TO PRODUCE CERTIFIED SEED	63
XX. CERTIFIED SEED PRODUCERS' ATTITUDES CONCERNING PROFITABILITY, OUTLOOK AND THEIR FUTURE PARTICIPATION IN CERTIFIED SEED PRODUCTION	65
XXI. LOCAL SOURCES AS REPORTED BY GROWERS WHERE FARMERS MAY PURCHASE CERTIFIED SEED, BY REGIONS	67
XXII. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES IN PROMOTING CERTIFIED SEED IN THE NORTH CENTRAL REGION	69
XXIII. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES IN PROMOTING CERTIFIED SEED IN THE NORTHEASTERN REGION	70

Tables	Page
XXIV. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES IN PROMOTING CERTIFIED SEED IN THE SOUTHERN REGION	71
XXV. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES IN PROMOTING CERTIFIED SEED IN THE WESTERN REGION	72
XXVI. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES IN PROMOTING CERTIFIED SEED IN THE UNITED STATES	73
XXVII. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE NORTH CENTRAL REGION, 1959	75
XXVIII. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE NORTHEASTERN REGION, 1959	77
XXIX. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE SOUTHERN REGION, 1959	79
XXX. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE WESTERN REGION, 1959	81
XXXI. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE NORTH CENTRAL REGION	84
XXXII. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE NORTHEASTERN REGION	86

Tables	Page
XXXIII. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE SOUTHERN REGION	88
XXXIV. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE WESTERN REGION	90
XXXV. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE UNITED STATES	92

LIST OF FIGURES

Figure		Page
1.	Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the North Central Region, 1959	96
2.	Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Northeastern Region, 1959	97
3.	Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Southern Region, 1959	98
4.	Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Western Region, 1959	99

INTRODUCTION

In the past few years, due to the competition which certified seed has experienced from commercial brands, more emphasis has been placed on the promotion of certified seed. Different brands, blends, and non-certified seed have been sold with the aid of extensive advertising and promotional schemes. Consequently, many certified seed producers and dealers have begun to publicize their product to meet outside competition. It appears that no longer does certified seed sell to the prospective grower unless the advantages of its use are publicized to encourage the use of this superior seed.

Certification of seed is conducted by either a state or national agency or an incorporated non-profit organization of seed growers. The organization or agency responsible for certification should be designated under state legislation and should have a close working relationship among seed growers, agricultural researchers, extension personnel and seed regulatory agencies.

The purpose of public certification is to maintain and to make available to the public high quality seed and propagating materials of superior crop varieties so grown

and distributed as to insure genetic identity and genetic purity. Varieties eligible for certification have resulted from natural selection or from systematic plant breeding programs. In either case, without a planned method for maintaining genetic purity, there is a grave danger of losing varietal identity as well as valuable germ plasm. Many farmers and seed producers are growing certified seed, and in some cases they have not been able to sell their seed. When superior seed is not planted, there is a need for more education of the farmer so that he might see the benefits to be derived from using certified seed. This study is designed to explore the different media used to help promote the sale of certified seed in all states carrying on certification programs. The opinions of the certified growers as to the effectiveness of the media used in their area were requested. The media effectiveness as reported by growers will be compared with the opinions of certification officials.

PURPOSE

A great amount of emphasis, in the past few years, has been placed on the educational promotion for increased use of certified seed. This study will help to evaluate the various materials and media, used by certification agencies in all participating states, and endeavor to find possible solutions to problems involved in the promotion of certified seed.

Some of the questions which are closely related to such a study are listed below. What are the state certification agencies doing to promote the use of certified seed? What materials and media are being used for educating the farmers and promoting the use of this seed? How does the certification official rate these materials and media in respect to the increased amount of certified seed sold and in respect to the general promotion of the certification programs in the states? What is the state's budget for the education of the grower and for the promotion of certified seed? What are the opinions of the certification agency official relative to the effectiveness of the materials and media used to increase the amount of certified seed used?

Do the county extension agents and other extension

personnel actively promote the use of certified seed? To what extent do commercial seedsmen actively promote certified seed? Do the county agent and vocational agriculture instructor encourage certified seed production? Is the production of certified seed a profitable enterprise? How many of the present producers will continue to grow certified seed? For how many years have producers been continuously growing certified seed? What, in the grower's opinion, aids in selling certified seed in his area? What factors encouraged a grower to produce certified seed? From what sources in the trade area can farmers purchase certified seed? In what manner does the grower of certified seed pay for promotional material? What can be done to help promote the use of certified seed?

The grower's evaluation of the educational and promotional practices carried on by respective state officials is important. It is the growers who produce and consume the certified seed. The evaluation of the media by these growers will help certification officials identify the effective means and materials being used by the producers of certified seed. If the producers are not aware of some of the publicity being used by their states to promote the

use of certified seed, then effort and money must be used in a more effective way to sell this program to the farmers.

It is the feeling of the writer, that if a better understanding between certification agencies and farmers of what media are being observed by growers in the area, a more effective publicity program can be initiated. The purpose of this study is to attempt to secure solutions to these problems and questions concerning certification. Therefore, the writer will endeavor to provide some tangible assistance to certification officials in planning future programs.

PROCEDURE

The information necessary for this study was obtained by sending questionnaires to 12 certified seed growers and to the seed certification official of each state in the United States who participate in a certification program. Grower's names were selected, at random, from the certified seed directories of all states operating a certification program. A random sampling technique was chosen so that every grower being sampled would have an even chance of his name being drawn. The data needed could only be received by the use of questionnaires or personal contacts. The latter form could not be used because of time and cost. A list of certification officials in each state was procured from the current International Crop Improvement Association Proceedings. A letter of explanation (Appendix A), the grower questionnaire (Appendix B), and a return self-addressed envelope were mailed to 451 certified seed producers in 38 states. Twelve growers were selected in each state, except in those states where there were less than 12 certified seed producers. In those cases all growers were surveyed. A different form of questionnaire (Appendix C), a letter of explanation (Appendix D), and a return self-addressed

envelope were sent to 38 state officials. Questionnaires returned totaled 58.69 per cent. A total of 251 or 55.65 per cent replies were received from the growers. Thirty-six or 94.74 per cent of the certification officials responded and returned the questionnaire. The grower response was considerably lower than expectations, but perhaps this can be substantiated by the fact that farmers are less apt to fill out a questionnaire than are professional people.

A difference in percentage of returns by growers in the four regions was noted. Grower response by regions were North Central 70.13 per cent, Western 52.14 per cent, Southern 48.48 per cent and the Northeastern 41.67 per cent. These responses indicate, to a slight extent, the feelings of certified seed growers in regard to the importance of the media used in promoting certified seed.

A compilation of the results of the two questionnaires was tabulated by regions and also for the nation as a whole. These compiled opinions and facts were used as a basis for this study. The questionnaires were tabulated in table and figure form and these results are the basis for the writer's analysis of this study.

REVIEW OF LITERATURE

Scientific literature on the subject of publicizing the promotion of certified seed is very limited. Consequently, most of the literature cited represents only ideas and opinions of certification officials of the states' certifying agencies which are recorded in the official proceedings of the International Crop Improvement Association.

In order to more clearly understand what certification is it might be well to repeat its definition. According to the Minimum Seed Certification Standards the purpose of public certification of planting stocks is to maintain and to make available to the public high quality seed and propagating materials of superior crop plant varieties which are so grown as to insure genetic identity and genetic purity. Only those varieties that are approved by a state or governmental agricultural experiment station and accepted by the certifying agency should be eligible for certification.

Certification should be directed by an incorporated non-profit organization of seed growers or by any state or national agency. In either case, the organization or agency should be established by state or national legislation and have a close working relationship with seed growers,

agricultural research, extension and seed regulatory agencies.¹

Some states have initiated educational and promotional selling programs to help farmers sell certified seed. The many media, which are used today to help advertise the use of certified seed, exemplifies this fact. Many examples can be cited where common unidentified seed, backed by a fancy name and good advertising, outsells good certified seed of a known genetic purity and of a superior variety. The thinking of the American people has progressively changed. Farmers should not be deceived by this type of promotion.² Farmers should use certified seed in order to be assured of obtaining a variety that has been proven to be superior. What do certification agencies do about this situation? Experiment stations and extension personnel publish bulletins, circulars and other publications. These factual presentations have little chance of adequate circulation among the farm people

¹Minimum Seed Certification Standards, p. 7, International Crop Improvement Association, Chambers Printing Company: Clemson, South Carolina, 1959.

²Frank J. Welch, "Cooperation Between Extension, Experiment Station, and Crop Improvement Personnel", 1954 Annual Report of the International Crop Improvement Association, pp. 90-95.

compared with the products of the skilled professional advertisers. All Crop Improvement Associations have planned, as one of their objectives, education and promotion for the increased use of certified seed by farmers. In this age of automation certified seed must be advertised and promoted in order to be sold.

Those who are supporting certified seed have public trust. The public must not be misled by false statements or by any deviation from the facts that pertain to certified seed. All promotional and educational work must always be factual. The art of the highly competitive industry, to stretch the truth a little, has no place in a public certification promotion program.

Certified seed and ordinary seed often look alike. Accordingly, the farmer must be convinced that when he buys certified seed he is purchasing hidden qualities that will bring about greater assurance of production to cover the additional expense entailed in its use.

Welch stated at the 1954 International Crop Improvement Association meeting, that "Our Extension program can and should be strengthened through (a) more emphasis on certified seed in our 4-H club program; (b) emphasis on the importance of good certified seed in our expanded Farm and

Home Development programs; (c) issuance of more carefully prepared educational materials listing and stressing the importance of certified seed; (d) a fuller utilization of radio, TV, and visual aid material to tell the story of good seed in relation to good agriculture; and finally, (e) a general acceptance by extension and all workers of the responsibility and opportunity to promote and sell good certified seed as a basis and fundamental part of its program of agricultural improvement."² There must be cooperation among the Experiment Station personnel, seed improvement association and Extension personnel to accomplish this public service.

More work needs to be done by experiment stations, the Extension Service and Crop Improvement Associations in order that more factual information can be obtained to prove the value of certified seed. Trueness-to-type tests, drill box surveys and comparative tests of certified versus uncertified seed are some of the procedures which can be utilized more extensively than is being done at present. Data obtained from these experiments can be invaluable to any planned educational and promotional program.

²Ibid.

In spite of all the education, promotion and advertising that can be done to help sell certified seed its use still depends upon effective marketing of the product. Today the product must be brought to the consumer. This requires effective merchandising techniques. Seed certification has traditionally been built around individual seed growers who, more often than not, tried also to be seed marketers. Certification has failed in this particular instance. For this reason there may seem to be a surplus of certified seed whereas the supply is actually much less than the planting needs. The farmer-seed grower usually is not a merchandiser. His sales program is ineffective or non-existent. He has no salesroom, no salesmen, no advertising program. He expects his customers to come to him -- and they do not. Or, if they do, they may find the proprietor plowing the back forty, the seed still not bagged and tagged, or stored away in some inaccessible or inconvenient place.³ This type of operation sends customers to other sources of seed where they may not find certified seed to buy.

³W.M. Meyers, "Where Do We Go From Here In Seed Certification?", 1957 Annual Report of the International Crop Improvement Association, pp. 178-186.

Many commercial seed dealers do not handle certified seed. This unfortunate occurrence is caused by a variety of circumstances: farmers selling seed wholesale and retail, over the fence trading, careless sale of seed as certified when tags are still on the shelf and not on the bag, certification of varieties for which no planting stock is available, poor processing and difficulty of the seed trade to line up and purchase certified seed with the necessary margin of profit.

The president of the Southern Seedsmen Association stated, "I believe the biggest help certification programs can gain in all states is a closer cooperation with the existing seed trade."⁴ By closer cooperation, crop improvement certification personnel could meet with seedsmen organizations and have "cards-on-the-table" discussions of the existing problems. Meeting of such a nature if approached with a spirit of good will and possible compromise should solve mutual difficulties.

Because the Experiment Stations and the United States

⁴J.L. Sutherland, Jr., "Promotion of Certified Seed Through Education", 1958 Annual Report of the International Crop Improvement Association, pp. 114-120.

Department of Agriculture are developing new improved varieties, the Extension Service has an obligation to the farmers of the country. They must emphasize the need for using these superior varieties for top production. The Land Grant Colleges also have an obligation to test these new varieties for trueness-to-type, yield, disease resistance and adaptability to the particular area. This would provide proof of their superiority over existing varieties.⁵

It is important that a certification agency carry on an educational and promotional program to increase the use of certified seed. Certified seed will not sell itself. Certification agencies must assist Extension Service personnel in the education of the farmers concerning the superior qualities of certified seed. The question, whether a certification agency should carry on an educational and promotional program, is summed up very nicely by Wiener, who said, "The certification agency can go as far as its resources will permit with an educational program but if it becomes a high pressure public relations agency to sell seed, it will fail

⁵ J.E. Douglas, "Promotion A Must -- But by Whom?", 1957 Annual Report of the International Crop Improvement Association, pp. 160-164.

in its primary duties, the certification of seed."⁶ The primary goal of any such program should be to make farmers certified seed conscious. These farmers will then demand certified seed and accept non-certified seed only when certified seed is not available to them.

A public relations task must be accomplished with the seedsmen because usually the farmer will have his ultimate contact with the commercial seed vendor. At the time of purchase, the seedsman's recommendation may be the determining factor which influences the farmer most in his selection of seed. A leading sales agency once said, "Except for bare necessities, you have to sell most people by direct personal contact."⁷ If this supposition is correct, it cannot be expected that an educational program promoting certified seed will do an effective job unless it develops and creates the interest of the wholesale seedsmen and the local seedsmen in the value and advantages of marketing certified seed. The

⁶ W.T.G. Wiener, "To What Extent Should A Certification Agency Carry Out An Educational Program?", 1956 Annual Report of the International Crop Improvement Association, pp. 61-62.

⁷ W.T.G. Wiener, "On the National Level", 1955 Annual Report of the International Crop Improvement Association, pp. 160-162.

seed trade can market certified seed, but they must be allowed a normal profit and have the cooperation of the certified seed producer.

Education and promotion of certified seed does enter into the responsibility of the United States Department of Agriculture Seed Regulatory Branch. The Seed Branch, Grain Division and Agricultural Marketing Service have as their responsibility the seed testing services of the Federal Government, Seed Certification Service and the Federal Seed Act. The part of the Federal Seed Act, which affects seed certification agencies and all persons in the production and sale of certified seed, is the regulation requiring proper labeling which, in turn, prevents misrepresentation of seed in interstate commerce. It is stated in one section of the Federal Seed Act that, "It shall be unlawful for any person to disseminate or cause to be disseminated any false advertisement concerning seed by the United States mails or in interstate or foreign commerce, in any manner or by any means, including radio broadcasts."⁸ The foregoing regulation prevents the use of exaggerated or misleading claims

⁸Rules and Regulations Under the Federal Seed Act, United States Department of Agriculture, U.S. Government Printing Office, 1956.

for certified seed. The merits of certified seed are many, and a certification agency carrying on an educational and promotional program can promote the use of certified seed on facts alone. A public service group such as a certification agency should always maintain high ethical standards. Thus authorities are in agreement that there is a need for the improvement of educational and promotional programs to increase the use of certified seed in all areas of the United States.

RESULTS OF STUDY

Response of Certification Officials

The 36 certification agencies completing the questionnaires indicated that they use some form of educational media to help encourage the use of certified seed in their respective states. Any type of program, regardless of the scope and size, needs a certain amount of money to operate.

State financing varies considerably. Sums, ranging from 100 dollars to as high as 30,000 dollars, are budgeted for the education of farmers and the promotion of certified seed by the certification agencies. Table I reports the educational budgets of the states responding in the United States. Twenty-one states do not have a fixed budget for this type of work but use funds as needed to finance the program which they promote. These figures reaffirm the fact that certification agencies throughout the United States are spending considerable amounts of money to publicize the use and sale of certified seed.

TABLE I. EDUCATIONAL BUDGETS AS REPORTED BY CERTIFICATION AGENCIES IN THE UNITED STATES BY REGIONS, 1959

Budget	North Central	North Eastern	Western	Southern
No budget set	4	3	9	5
\$ 1,000 to \$ 2,000	-	1	-	-
\$ 2,000 to \$ 5,000	-	-	1	1
\$ 5,000 to \$10,000	1	-	-	3
\$10,000 to \$15,000	4	1	-	-
\$15,000 to \$20,000	1	-	-	-
Over \$20,000	2	-	-	-

According to comments made on the questionnaires the money, either budgeted or otherwise, used by these agencies was obtained for this purpose in many different ways. In some states the certification program was operated entirely by the Extension Service. All personnel and materials used for certification in these states were directly responsible to the Extension Service. Most of the states put the financial burden on the grower of certified seed by charging certification fees, by selling tags and seals, by charging a direct publicity fee and by assessing for seed sold. One state indicated that a large portion of this work was paid

for by the state agricultural college.

Tables II thru VI illustrate the use of the different means of promotion in the four regions. All of the 12 states reporting in the North Central Region printed and distributed a seed certification standard and a seed directory. Eight states in this region printed a general and a fall seed directory. Seven states reported the printing of a spring directory. In the North Central Region, the states reported the use of the following means of promoting certified seed, listed in the order of greatest use: state-wide news releases and radio (12 states); seed news and personal contacts and visitations (10 states); exhibit materials, sponsored awards and attended state fairs with an exhibit publicizing certified seed (9 states); surveys, newspaper releases to local papers, classified ads, television, field days, farmer classes and demonstration plots (8 states); certification bags and seed clinics (7 states); bulletins, mimeographed materials, circular letters, sponsored awards, movies and preparation of exhibits at county fairs (6 states); leaflets, trophies and farmer short courses (5 states). Some of the states used other items of promotion which were not generally used by most of the states in the region. Specialty items such as calendars and pens were used by some of the

states in this region.

When comparing what is actually being used to promote the use of certified seed in the North Central Region, as shown by Table II, with what the grower believes is being used in his area, as shown by Table XXVII, page 75, some variations of opinions were found. The seed directory and certification standards were used by all of the states in this region. Certified growers also ranked these two items high. Ninety-four per cent reported the use of a seed directory while only 84 per cent reported the use of certification standards. Possibly growers did not feel that standards were a form of promotion because 16 per cent of these growers of certified seed were not aware of the use of certification standards in their states. Demonstration plots ranked second as being used by certification agencies to promote certified seed. The indication by growers showed that the observation of demonstration plots was very high among certified growers, and probably would be a highly effective promotional means. Extension reports were in use by three states; yet 81 per cent of all the growers in this region were aware of its use. Growers may have confused extension reports with other material sent out periodically by either seed certification, extension or the college

agencies. In either case, materials sent out in the form of reports to the farmers in the North Central Region was observed by them and would seem to be a good means of promoting the use of certified seed. State fair participation, field days, the use of bags, and classified ads, as shown by Table XXVII, page 75, were other means of promotion of which the growers were aware.

TABLE II. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE NORTH CENTRAL REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959

<u>Means of promotion</u>	<u>Number of states using medium in their states</u>
Certification standards	12
State-wide news releases	11
Radio	11
Personal contacts & visitations	10
Seed news	10
Exhibit materials	9
Sponsor awards	9
State fairs	9
Television	8
Field days	8
Demonstration plots	8
Farmer classes	8
Seed directory	8
Fall seed directory	8
Survey	8
Local newspaper releases	8
Classified ads	8
Spring seed directory	7
Bags	7
Seed clinics	7

TABLE II. (continued)

Means of promotion	Number of states using medium in their states
Movies (Crop Improvement or Certification)	6
County fairs	6
Bulletins	6
Mimeographed materials	6
Circular letters	6
Signs	6
Leaflets	5
Trophies	5
Short courses	5
Slide sets	4
Circulars	4
Pamphlets	4
Folders	4
Contests	4
Mat & sheet suggestions (To grower)	4
Certificates for certified seed processors	4
Posters	4
Certification material packet (Available to youth leaders)	3
Matches	3
Napkins	3
Reports	3
Extension reports	3
Fact sheets	2
Reprints from farm magazines	2
Billboards	2
Calendars	2
Pencils & pens	2
Other specialties	1
Drill box stickers	1
Decals or stickers	1
Price lists	1
Printed letterheads for certified seed producers	1

Of the five states reporting in the Northeastern Region, as shown in Table III, all issued a certification standard and four states printed a seed directory. Agencies in the Northeastern Region used the following means of promotion, listed in order of use: state-wide news releases, local news releases, radio and personal contacts and visitations (5 states); use of exhibit materials, surveys, television and county fair exhibits (4 states); seed news, bulletins, leaflets, mimeographed material, slide sets, movies, county fairs, demonstration plots, seed clinics and farmer classes (3 states). The absence of certification agencies giving specialty items was noticed in this area.

The promotion activities and materials which growers believed to be in actual use in the Northeastern Region were somewhat different from what was actually being used. Ninety-six per cent of the certified seed growers were aware of extension reports being used in this region, but only two of these states reported the use of these reports. It would seem that seed producers grouped all periodical material such as extension reports, seed news, fact sheets and circular letters. If this assumption is correct, the producers in this region read and utilize this form of material. Consequently, this would be a good method of promoting certified

seed. Local newspaper releases, field days, reports, demonstration plots and personal contacts and visitations also ranked high in respect to actual use and grower observation.

TABLE III. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE NORTHEASTERN REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959

<u>Means of promotion</u>	<u>Number of states using medium in their states</u>
Certification standards	5
State-wide news releases	5
Local newspaper releases	5
Radio	5
State fairs	5
Personal contacts & visitations	5
Exhibit materials	4
Survey	4
Television	4
Field days	4
Seed directory	3
Seed news	3
Bulletins	3
Leaflets	3
Mimeographed materials	3
Slide sets	3
Movies (Crop Improvement or Certification)	3
County fairs	3
Demonstration plots	3
Seed clinics	3
Farmer classes	3
Spring seed directory	2
Fall seed directory	2
Circulars	2
Reports	2
Extension reports	2
Fact sheets	2

TABLE III. (continued)

Means of promotion	Number of states using medium in their states
Mat & sheet suggestions (To grower)	2
Posters	2
Bags	2
Short courses	2
Pamphlets	1
Folders	1
Booklets	1
Circular letters	1
Classified ads	1
Contests	1
Sponsor awards	1
Signs	1
Decals or stickers	1
Trophies	1
Others	1

According to Table IV, the nine states reporting in the Southern Region all issue a certification standard and a seed directory at some time during the year. Again personal contacts and visitations were listed as the most frequently used means of promoting seed certification. Circular letters, radio and participation in the state fair was checked by seven states. Five states used seed news, mimeographed materials, state-wide news releases and television as promotional means. Numerous specialty items are given by some states in this area. Four states give calendars publicizing

certified seed.

Grower response is reported in Table XXIX, page 80. Ninety-two per cent of the respondents reported the actual use of bags as a means of promoting certified seed. There would seem to be a discrepancy in the checking of this item because only two states reported the use of bags in their states, according to Table IV. Possibly the use of branded bags with certified tags were observed by some of the growers. Since farmers are this observant of branded bags, it would seem that this type of promotion might be increased in the Southern Region. Field days and demonstration plots were observed to be in actual use by over 80 per cent of the growers. Since only three states reported the use of such promotional methods the farmers must be attending commercial demonstration plots. Personal contacts and visitations were listed by nine of the ten states reporting and 90 per cent of the growers were aware of their use in the area.

TABLE IV. NUMBER OF STATES REPORTING THE USE OF EACH MEANS OF SEED CERTIFICATION PROMOTION IN THE SOUTHERN REGION AS REPORTED BY CERTIFICATION OFFICIALS, 1959

<u>Means of promotion</u>	<u>Number of states using medium in their states</u>
Certification standards	9
Personal contacts & visitations	9
Radio	7
State fairs	7
Circular letters	7
Spring seed directory	6
Fall seed directory	6
Seed directory	5
Seed news	5
Mimeographed materials	5
State-wide news releases	5
Television	5
County fairs	4
Local newspaper releases	4
Certificates for certified seed processors	4
Contests	4
Posters	4
Calendars	4
Slide sets	3
Short courses	3
Field days	3
Demonstration plots	3
Seed clinics	3
Leaflets	3
Exhibit materials	3
Signs	3
Decals or stickers	3
Bulletins	2
Folders	2
Reports	2
Extension reports	2
Classified ads	2
Sponsor awards	2
Billboards	2
Pencils & pens	2

TABLE IV. (continued)

Means of promotion	Number of states using medium in their states
Bags	2
Farmer classes	2
Movies (Crop Improvement or Certification)	1
Circulars	1
Reprints from farm magazines	1
Certification material packet (Available to youth leaders)	1
Survey	1
Mat & sheet suggestions (To grower)	1
Printed letterheads for certified seed producers	1
License tags	1
Thermometers	1
Rulers	1
Other specialties (Letter openers)	1
Trophies	1

As shown in Table V, 10 states responded to the questionnaires in the Western area. All of these states issued a seed directory sometime during the year, but only seven printed the certification standard. The item checked most frequently for promotion was the use of state-wide news releases; all but one of these states reported its use. The other promotional means used follow in the order of their use: personal contacts and visitations (8 states); local newspaper releases, county fairs and field days (7 states);

circulars, circular letters and the use of radio (6 states); sponsor awards, television and demonstration plots (5 states).

In comparison, Table XXX, page 81, shows the means of promotion that seed growers believe to be in use. County fairs and state fair participation, field days and demonstration plots were reported by 70 per cent or more of the growers. These items were reported in actual use by a majority of the states reporting in this region. Five and six states reported the use of radio, television and sponsorship of awards as means of promotion. The farmer response to these same items was rather low as evidenced by the fact that 30 per cent thought that radio was used to promote certified seed, 24 per cent that television was used and only six per cent were aware of the sponsorship of awards. Local and state-wide news releases were observed in use by less than 50 per cent of the seed producers but nine states reported the use of local news releases.

TABLE V. NUMBER OF STATES REPORTING THE USE OF EACH MEANS
OF SEED CERTIFICATION PROMOTION IN THE WESTERN
REGION AS REPORTED BY CERTIFICATION
OFFICIALS, 1959

Means of promotion	Number of states using medium in their states
Seed directory	9
State-wide news releases	9
Personal contacts & visitations	8
Certification standards	7
Local newspaper releases	7
County fairs	7
Field days	7
Radio	6
Circulars	6
Circular letters	6
Bulletins	5
Leaflets	5
Sponsor awards	5
Television	5
Demonstration plots	5
State fairs	4
Spring seed directory	4
Seed news	4
Reports	4
Mimeographed materials	4
Exhibit materials	4
Survey	4
Classified ads	4
Trophies	3
Seed clinics	3
Extension reports	3
Posters	3
Fall seed directory	2
Folders	2
Price lists	2
Certification material packet (Available to youth leaders)	2
Mat & sheet suggestions (To grower)	2

TABLE V. (continued)

Means of promotion	Number of states using medium in their states
Certificates for certified seed processors	2
Bags	2
Movies (Crop Improvement or Certification)	2
Slide sets	1
Short courses	1
Farmer classes	1
Pamphlets	1
Booklets	1
Fact sheets	1
Reprints from farm magazines	1
Printed letterheads for certified seed producers	1
Contests	1
Calendars	1
Pencils & pens	1
Other specialties (Magnifying glass)	1
Drill box stickers	1

The means of reporting certification as tabulated for the United States as a whole are similar to the regional tabulations and are reported in Table VI. All but one of the states reported that some form of a seed directory was printed, either a general seed directory, spring directory or a fall directory. Some states have a combination of the three issues, depending on the crops grown in the particular area. Thirty-three states, of the 36 states reporting in the United States, printed certification standards. Most

agency heads did not consider the certification standard a strong type of promotional material. Heading the list of promotion means were personal contacts and visitations. Thirty-two states reported that they had active programs of making visitations with farmers, seed dealers and others who may have an interest in certified seed. State-wide news releases ranked second and were reported as being used by 30 states. These releases usually originated with the certification agency and were made available to the newspapers of the state. Other means which were used by more than one-half of the 36 states reporting were: radio, local newspaper releases, state fair participation, seed news, television, field days, exhibit materials, county fairs, circular letters and demonstration plots.

TABLE VI. NUMBER OF STATES REPORTING THE USE OF EACH MEANS
OF SEED CERTIFICATION PROMOTION IN THE UNITED STATES
AS REPORTED BY CERTIFICATION OFFICIALS, 1959

<u>Means of promotion</u>	<u>Number of states using medium in their states</u>
Certification standards	33
Personal contacts & visitations	32
State-wide news releases	30
Radio	29
Seed directory	27
Local newspaper releases	25
State fairs	25
Television	22
Field days	22
Seed news	22
Exhibit materials	20
County fairs	20
Demonstration plots	19
Spring seed directory	19
Circular letters	19
Fall seed directory	18
Mimeographed materials	18
Survey	17
Sponsor awards	17
Bulletins	16
Leaflets	16
Seed clinics	16
Classified ads	15
Farmer classes	14
Circulars	13
Posters	13
Movies (Crop Improvement or Certification)	12
Reports	11
Bags	11
Slide sets	11
Short courses	11
Trophies	10
Extension reports	10
Certificates for certified seed processors	10

TABLE VI. (continued)

<u>Means of promotion</u>	<u>Number of states using medium in their states</u>
Contests	10
Signs	10
Mat & sheet suggestions (To grower)	8
Folders	7
Certification material packet (Available to youth leaders)	7
Calendars	7
Decals or stickers	7
Pamphlets	6
Fact sheets	5
Pencils & pens	5
Reprints from farm magazines	4
Billboards	4
Other specialties	3
Matches	3
Napkins	3
Price lists	3
Printed letterheads for certified seed producers	3
Booklets	2
Drill box stickers	2
License tags	1
Thermometers	1
Rulers	1
Others	1

Certification officials were asked to rate the materials and contacts promoting the certification program in their state in respect to their value. In the North Central Region, as reported in Table VII, the use of seed news and actual personal contact and visitation were ranked at the top of

the list for promoting the certification program. Six of the states reporting rated farmer classes, state fairs and the use of the radio as a good to excellent means of promoting the certification program. Leaflets, exhibit materials, classified ads, field days, local newspaper releases, slide sets, movies, county fair participation, use of demonstration plots and seed clinics were rated as good to excellent by more than one-half of the agencies reporting their use in respective states. Most of the specialty items used by this region were ranked in the poor to fair category.

Both growers and officials ranked the use of seed directories, classified ads and field days as good means of promoting a greater sale of certified seed. Demonstration plots received the greatest response from the growers; in contrast, six of the certification officials of the 12 states reporting in this region rated demonstration plots as a fair to good means of promoting the sale of certified seed. Considering the opinions of the growers a greater use could be made of demonstration plots in the North Central Region. Local and state news releases were ranked consistently by growers as effective means of promoting the sale of seed. Only five of the state officials responding indicated news releases were a good means of promotion.

The survey indicates that news releases should be used to a greater extent than they are at the present time because farmers are cognizant of such releases.

TABLE VII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE NORTH CENTRAL REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Seed news	-	2	2	2	4
Personal contacts & visitations	-	1	1	2	5
Radio	-	2	3	3	1
State fairs	-	-	5	1	1
Farmer classes	-	-	2	3	2
Leaflets	-	3	1	-	5
Exhibit materials	-	1	1	3	2
Classified ads	-	1	3	1	2
Field days	-	-	3	2	1
Slide sets	-	1	1	2	2
Movies (Crop Improvement or Certification)	-	-	1	1	3
County fairs	-	-	3	2	-
Demonstration plots	-	3	3	1	1
Seed clinics	-	2	2	3	-
Fall seed directory	1	2	2	-	3
Local newspaper releases	-	-	2	2	1
Survey	-	-	1	1	2
Sponsor awards	-	3	1	2	1
Seed directory	1	4	1	-	1
Spring seed directory	-	2	2	-	2
Certification standards	4	3	1	-	2
Bulletins	2	1	-	2	1
Circulars	1	1	-	-	2
Pamphlets	-	1	-	1	2
Folders	1	2	-	1	1
Reports	-	1	-	2	-
Price lists	1	-	-	-	-

TABLE VII. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Mimeographed materials	1	-	-	-	2
Extension reports	1	-	-	2	-
Fact sheets	-	-	1	-	-
Circular letters	2	-	3	-	-
Reprints from farm magazines	-	-	2	-	-
Certification material packet (Available to youth leaders)	-	-	1	2	-
State-wide news releases	2	-	3	1	-
Mat & sheet suggestions (To grower)	1	1	-	-	-
Printed letterheads for certified seed producers	1	-	-	-	-
Certificates for certified seed processors	-	1	1	-	-
Contests	1	2	1	-	-
Posters	-	-	1	1	-
Signs	-	-	1	1	-
Billboards	-	1	-	-	-
License tags	1	-	1	-	-
Pencils & pens	1	1	-	-	-
Matches	1	-	-	-	-
Napkins	1	1	1	-	-
Other specialties	-	1	-	-	-
Drill box stickers	1	-	-	-	-
Bags	-	3	1	1	-
Decals or stickers	1	-	-	-	-
Trophies	-	2	-	1	1
Short courses	-	1	2	1	-
Television	1	2	1	-	2

Table VIII indicates that the response from the Northeastern Region was so incomplete that no valid conclusions could be formulated.

TABLE VIII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE NORTHEASTERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Personal contacts & visitations	-	-	2	2	-
Seed directory	-	1	3	-	-
State-wide news releases	-	1	1	1	1
Local newspaper releases	-	1	1	2	-
Radio	-	1	2	-	1
Field days	-	-	2	1	-
Seed news	-	1	2	-	-
Bulletins	-	-	1	-	1
Survey	-	1	1	1	-
Posters	-	-	-	1	1
Television	-	1	1	-	1
State fairs	1	-	2	-	-
Spring seed directory	-	1	1	-	-
Fall seed directory	-	1	1	-	-
Certification standards	-	1	2	-	-
Circulars	-	-	-	-	1
Leaflets	-	1	-	-	1
Reports	1	-	-	-	-
Mimeographed materials	-	1	1	-	-
Extension reports	-	1	-	-	-
Fact sheets	-	1	-	-	-
Circular letters	-	1	-	-	-
Exhibit materials	1	1	1	-	-
Mat & sheet suggestions (To grower)	-	1	1	-	-
Contests	-	-	1	-	-
Sponsor awards	-	-	1	-	-
Bags	-	1	1	-	-
Decals or stickers	-	-	-	1	-
Trophies	-	-	1	-	-
Slide sets	-	2	-	-	-
Movies (Crop Improvement or Certification)	-	2	-	-	-
Short courses	-	-	1	-	1
County fairs	-	-	1	-	-

TABLE VIII. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Demonstration plots	1	-	-	1	-
Seed clinics	-	-	-	-	1
Farmer classes	1	-	-	1	-
Others	-	-	-	1	-

Of the nine states in the Southern Region reporting, (Table IX), eight officials reported personal contacts and visitations as a good to excellent means of promoting the certification program in their states. Seventy-seven per cent of the replies in this region value the certification standards as a good means of promoting the program in their states. This feeling was not supported by officials in the other three regions, for this medium was scored in the poor to fair range by 60 per cent. The use of radio, television and participation at state fairs was also rated as a better than average means of promoting the program in the Southern Region. States reporting the use of specialty items, especially calendars, had a high regard for their effectiveness in the promotion of the certification program.

TABLE IX. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE SOUTHERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Personal contacts & visitations	-	-	2	2	4
Certification standards	1	1	2	3	2
Television	-	1	-	2	2
Radio	-	3	3	-	1
State fairs	-	2	2	1	1
Seed directory	-	2	1	1	1
Spring seed directory	-	3	2	1	-
Fall seed directory	-	3	2	1	-
Bulletins	-	-	-	1	1
Circulars	-	-	1	-	-
Leaflets	1	-	2	-	-
Folders	-	1	1	-	-
Reports	-	-	1	-	-
Mimeographed materials	-	2	2	1	-
Extension reports	-	1	1	-	-
Circular letters	-	3	2	1	-
Reprints from farm magazines	-	-	1	-	-
Certification material packet (Available to youth leaders)	-	-	1	-	-
Exhibit materials	-	-	-	1	1
Survey	-	-	-	-	1
State-wide news releases	-	-	1	1	1
Local newspaper releases	-	-	1	1	-
Classified ads	-	-	-	1	-
Mat & sheet suggestions (To grower)	-	-	-	1	-
Printed letterheads for certified seed producers	-	-	1	-	-
Certificates for certified seed processors	-	1	1	-	-
Contests	-	1	2	-	-
Posters	-	-	1	1	1
Sponsor awards	-	1	1	-	-
Signs	-	-	-	1	1
Billboards	-	-	-	-	1

TABLE IX. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
License tags	-	-	-	-	1
Calendars	-	-	-	1	2
Pencils & pens	-	1	-	-	-
Other specialties (Letter openers)	-	-	1	-	-
Bags	-	-	1	-	-
Decals or stickers	-	1	1	1	-
Slide sets	-	-	2	1	-
Movies (Crop Improvement or Certification)	-	-	-	-	1
Short courses	-	-	1	2	-
County fairs	-	1	1	-	1
Field days	-	1	1	-	1
Demonstration plots	-	-	1	-	2
Seed clinics	1	-	1	1	-
Farmer classes	-	-	1	-	1

The Western Region officials (see Table X) rated the use of local newspaper releases, personal contacts and visitations as the most effective means of promotion of the certification program. Field days, demonstration plots, state-wide news releases and seed news were rated by a majority of those reporting as good to excellent for promoting the program.

TABLE X. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE RESPECTIVE STATES OF THE WESTERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Local newspaper releases	-	1	2	4	1
Personal contacts & visitations	-	-	2	2	2
Field days	1	1	3	1	1
Circulars	1	-	5	-	-
Seed directory	2	3	-	4	-
Seed news	-	-	1	2	1
State-wide news releases	-	2	3	1	-
Demonstration plots	-	1	1	1	2
Spring seed directory	-	1	3	-	-
Exhibit materials	-	1	3	-	-
Reports	1	-	1	1	-
Fall seed directory	-	-	-	2	-
Certification standards	1	3	1	2	-
Bulletins	2	-	2	-	-
Leaflets	1	1	3	-	-
Pamphlets	-	-	1	-	-
Folders	1	-	1	-	-
Booklets	-	1	-	-	-
Price lists	-	-	1	-	1
Mimeographed materials	1	1	1	1	-
Extension reports	1	-	2	-	-
Circular letters	1	2	2	1	-
Reprints from farm magazines	-	2	-	-	-
Certification material packet (Available to youth leaders)	1	-	1	-	-
Survey	-	3	1	-	-
Classified ads	-	2	1	-	-
Mat & sheet suggestions (To grower)	-	-	2	-	-
Printed letterheads for certified seed producers	-	1	-	-	-
Certificates for certified seed processors	1	1	-	-	-
Posters	-	2	1	-	-
Sponsor awards	2	1	2	-	-

TABLE X. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Calendars	-	-	1	-	-
Pencils & pens	-	-	1	-	-
Other specialties (Magnifying glass)	-	-	1	-	-
Drill box stickers	-	-	1	-	-
Bags	-	-	2	-	-
Trophies	-	-	2	-	-
Slide sets	-	-	1	-	-
Movies (Crop Improvement or Certification)	-	-	1	-	-
Short courses	-	1	-	-	-
Radio	-	2	2	-	1
Television	2	1	-	-	-
State fairs	1	1	1	-	-
County fairs	1	2	2	1	-
Seed clinics	-	-	2	-	-

In summarizing the reports from all of the officials from the 36 reporting states, Table XI indicates that 24 checked personal contacts and visitations as good to excellent means of promoting the certification program in their states. Seventeen states ranked radio and local newspaper releases as a good to excellent method of promoting the certification program. Any item which was checked good to excellent by over 10 states included such means of promotion as seed news, certification standards, seed directories, exhibit materials, state-wide news releases, state and

county fairs, field days, seed clinics and farmer classes. However, opinion on the value of seed directories and certification standards was varied because at least 14 officials checked these media as poor to fair in promoting the certification program. With the exception of calendars, specialty items were rated as a poor means of promoting certification.

TABLE XI. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THE VALUE IN PROMOTING THE CERTIFICATION PROGRAM IN THE UNITED STATES

Means of promotion	Poor	Fair	Good	Very good	Excellent
Personal contacts & visitations	-	1	5	8	11
Radio	-	8	10	3	4
Local newspaper releases	-	2	6	9	2
Field days	1	2	9	4	3
Certification standards	6	8	6	5	4
Seed news	-	3	5	4	5
State-wide news releases	2	3	8	4	2
State fairs	2	3	10	2	2
Demonstration plots	1	4	5	3	5
Seed directory	3	10	5	5	2
Exhibit materials	1	3	5	4	3
Spring seed directory	-	7	8	1	2
Fall seed directory	1	6	5	3	3
County fairs	1	3	7	3	1
Farmer classes	1	-	3	4	3
Seed clinics	1	2	5	4	1
Television	3	5	2	2	5
Bulletins	4	1	3	3	3
Circulars	2	1	6	-	3
Leaflets	2	5	6	-	6
Mimeographed materials	2	4	4	2	2
Classified ads	-	3	4	2	2
Pamphlets	-	1	1	1	2

TABLE XI. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Folders	2	3	2	1	1
Booklets	-	1	-	-	-
Reports	2	1	2	3	-
Price lists	1	-	1	-	1
Extension reports	2	2	3	2	-
Fact sheets	-	1	1	-	-
Circular letters	3	6	7	2	-
Reprints from farm magazines	-	2	3	-	-
Certification material packet (Available to youth leaders)	1	-	3	2	-
Survey	-	4	3	2	3
Mat & sheet suggestions (To grower)	1	2	3	1	-
Printed letterheads for certified seed producers	1	1	1	-	-
Certificates for certified seed processors	1	3	2	-	-
Contests	1	3	4	-	-
Posters	-	2	3	3	2
Sponsor awards	2	5	5	2	1
Signs	-	-	1	2	1
Billboards	-	1	-	-	1
License tags	1	-	1	-	1
Calendars	-	-	1	1	2
Pencils & pens	1	2	1	-	-
Matches	1	-	-	-	-
Napkins	1	1	1	-	-
Other specialties	-	1	2	-	-
Drill box stickers	1	-	1	-	-
Bags	-	4	5	1	-
Decals or stickers	1	1	1	2	-
Trophies	-	2	3	1	1
Slide sets	-	3	4	2	3
Movies (Crop Improvement or Certification)	-	2	2	1	4
Short courses	-	2	4	3	1
Others	-	-	-	1	-

Tables XII thru XVI show rating of media used to increase the volume of certified seed as checked by certification officials in the four regions of the United States. As seen in Table XII, the North Central Region officials reported that the spring and fall seed directory ranked as a good to excellent means of selling seed in their areas. Other media which were rated as effective means of increasing volume of seed sold were: personal contacts and visitations, farmer classes, seed news, exhibit materials and classified advertising. The use of specialties rated low in promoting the sale of certified seed.

TABLE XII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE NORTH CENTRAL REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Spring seed directory	-	-	3	2	5
Fall seed directory	1	-	3	5	2
Seed news	1	1	3	2	3
Personal contacts & visitations	-	2	2	2	4
Farmer classes	-	-	2	3	2
Exhibit materials	-	-	2	3	2
Classified ads	-	-	2	1	4
Slide sets	-	-	2	3	1
State fairs	1	1	5	-	1
Field days	-	-	4	1	1
Demonstration plots	-	2	4	2	-
Seed clinics	-	2	4	2	-
Movies (Crop Improvement or Certification)	-	-	2	-	3
Radio	-	4	1	2	2
Seed directory	-	2	4	1	-
State-wide news releases	1	-	2	2	1
Television	1	1	2	-	2
County fairs	-	1	2	2	-
Survey	-	-	2	-	2
Local newspaper releases	-	1	-	2	2
Certification material packet (Available to youth leaders)	-	-	1	2	-
Certification standards	5	2	3	-	-
Bulletins	1	1	1	2	1
Circulars	2	-	1	-	1
Leaflets	-	2	2	-	1
Pamphlets	-	1	-	1	2
Folders	-	1	2	1	1
Reports	-	-	-	2	-
Price lists	-	-	-	1	1
Mimeographed materials	1	1	-	1	-
Extension reports	-	2	-	1	-
Fact sheets	-	-	1	-	-
Circular letters	1	-	4	-	-

TABLE XII. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Reprints from farm magazines	1	-	1	-	-
Mat & sheet suggestions (To grower)	-	1	1	-	-
Printed letterheads for certified seed producers	-	1	-	-	-
Certificates for certified seed processors	-	-	2	-	-
Contests	1	3	-	-	-
Posters	-	-	1	1	-
Sponsor awards	1	2	3	1	-
Signs	-	-	1	1	-
Billboards	-	1	-	-	-
License tags	1	-	1	-	-
Pencils & pens	1	-	1	-	-
Matches	1	-	-	-	-
Napkins	1	-	1	1	-
Other specialties	1	-	-	-	-
Drill box stickers	-	1	-	-	-
Bags	-	2	2	1	-
Decals or stickers	1	-	-	-	-
Trophies	1	1	1	1	-
Short courses	-	2	-	2	-

Those reporting in the Northeastern Region, according to Table XIII, showed very little agreement on the effectiveness of any of the means listed. However, in this group there were only four states reporting and this seems insufficient to be considered as significant evidence.

TABLE XIII. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE NORTHEASTERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excel- lent
State-wide news releases	1	-	-	2	1
Local newspaper releases	1	-	-	3	-
Personal contacts & visitations	-	2	-	2	-
Demonstration plots	1	-	-	-	1
Seed directory	-	1	1	1	-
Spring seed directory	-	1	-	1	-
Fall seed directory	-	1	-	1	-
Seed news	-	2	1	-	-
Certification standards	-	1	2	-	-
Bulletins	-	-	-	1	1
Circulars	-	-	-	-	1
Leaflets	-	-	-	1	-
Reports	-	1	-	-	-
Mimeographed materials	-	-	2	-	-
Extension reports	-	1	-	-	-
Fact sheets	-	1	-	-	-
Circular letters	-	1	-	-	-
Exhibit materials	1	1	1	-	-
Survey	1	-	2	-	-
Mat & sheet suggestions (To grower)	-	1	-	1	-
Contests	-	-	1	-	-
Posters	-	-	-	1	1
Sponsor awards	-	-	1	-	-
Bags	-	1	-	1	-
Decals or stickers	-	-	-	1	-
Trophies	-	-	1	-	-
Slide sets	-	2	-	-	-
Movies (Crop Improvement or Certification)	1	1	-	-	-
Short courses	-	1	-	-	1
Radio	-	2	1	-	1
Television	1	1	-	-	1
State fairs	2	-	1	-	-
County fairs	1	-	-	-	-

TABLE XIII. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Field days	1	-	1	1	-
Seed clinics	-	-	-	1	-
Farmer classes	-	1	-	-	1
Others	-	-	1	-	-

The Southern Region, as shown in Table XIV, ranked the use of spring and fall seed directories in the good to excellent category as a means of increasing the volume of seed sold. This region rated the value of certification standards as a means of increasing the sale of certified seed much higher than the other three regions in the United States. Seven of the nine states ranked personal contacts and visitations and certification standards as a good to very good means of promoting the sale of certified seed. The officials in this region rated the specialty items as a good to excellent means of promotion. Personal contacts and visitations were ranked by six of the seven states reporting as a good to excellent means of increasing seed sales. Radio and television were considered as a good means of seed sale promotion by the officials in this region. It is interesting to compare the rating of the officials with the means

listed by the growers (see Table XXXIII, page 88). Specialty items were not named by a single grower; yet the officials indicated such specialties were an excellent means of promoting certified seed.

TABLE XIV. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE SOUTHERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Certification standards	1	1	4	3	-
Personal contacts & visitations	-	1	3	1	3
Radio	-	1	5	-	1
Spring seed directory	-	-	4	2	-
Fall seed directory	-	-	4	2	-
Seed directory	-	2	4	-	1
Television	-	1	-	2	2
Field days	-	1	-	1	1
Demonstration plots	-	1	-	-	2
Extension reports	-	6	2	-	-
Seed news	-	1	-	-	-
Bulletins	-	-	-	1	1
Circulars	-	-	1	-	-
Leaflets	1	-	2	-	-
Folders	-	1	1	-	-
Reports	1	1	1	-	-
Mimeographed materials	-	3	1	1	-
Circular letters	-	3	2	1	-
Reprints from farm magazines	-	-	1	-	-
Certification material packet (Available to youth leaders)	-	-	1	-	-
Exhibit materials	-	-	-	1	1
Survey	-	-	-	-	1
State-wide news releases	-	-	1	1	1
Local newspaper releases	-	-	1	1	-
Classified ads	-	-	-	1	-

TABLE XIV. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Mat & sheet suggestions (To grower)	1	-	-	-	-
Printed letterheads for certified seed producers	-	-	1	-	-
Certificates for certified seed processors	-	1	1	-	-
Contests	-	1	2	-	-
Posters	-	-	1	1	1
Sponsor awards	-	1	1	-	-
Signs	-	-	-	1	1
Billboards	-	-	-	-	1
License tags	-	-	-	-	1
Calendars	-	-	-	1	2
Pencils & pens	-	1	-	-	-
Other specialties (Letter openers)	-	-	1	-	-
Bags	-	-	1	-	-
Decals or stickers	-	1	1	1	-
Slide sets	-	-	2	-	1
Movies (Crop Improvement or Certification)	-	-	-	-	1
Short courses	-	2	-	1	-
State fairs	-	3	2	-	1
County fairs	-	1	1	-	1
Seed clinics	-	1	1	1	-
Farmer classes	-	1	-	-	1

The Western Region officials (Table XV) rated personal contacts and visitations as the best means of increasing the sale of certified seed. Next in order of rating were: the use of seed directories, field days, county fairs and demonstration plots. However, the Western officials checked

very few media as a good to excellent means of increasing volume of selling certified seed.

TABLE XV. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE STATES OF THE WESTERN REGION

Means of promotion	Poor	Fair	Good	Very good	Excellent
Seed directory	-	2	2	5	-
Personal contacts & visitations	-	-	1	4	1
Field days	1	1	3	1	1
County fairs	1	1	3	1	-
Demonstration plots	-	1	1	1	2
Spring seed directory	-	-	1	2	1
State-wide news releases	-	3	3	1	-
Local newspaper releases	-	2	3	-	1
Fall seed directory	-	-	-	2	-
Seed news	-	1	1	2	-
Certification standards	1	3	3	-	-
Bulletins	2	-	2	-	-
Circulars	1	1	4	-	-
Leaflets	1	2	2	-	-
Pamphlets	-	-	1	-	-
Folders	1	-	1	-	-
Booklets	-	1	-	-	-
Reports	1	2	-	-	1
Price lists	-	-	2	-	-
Mimeographed materials	2	1	-	1	-
Extension reports	1	1	1	-	-
Circular letters	1	2	2	1	-
Reprints from farm magazines	-	1	-	1	-
Certification material packet (Available to youth leaders)	1	-	1	-	-
Exhibit materials	-	1	3	-	-
Survey	-	3	1	-	-
Classified ads	-	1	2	-	-
Mat & sheet suggestions (To grower)	-	-	1	1	-

TABLE XV. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Printed letterheads for certified seed producers	-	1	-	-	-
Certificates for certified seed processors	1	1	-	-	-
Posters	-	2	1	-	-
Sponsor awards	1	2	2	-	-
Calendars	-	-	1	-	-
Pencils & pens	-	-	1	-	-
Other specialties (Magnifying glass)	-	-	1	-	-
Drill box stickers	-	-	-	1	-
Bags	-	-	1	1	-
Trophies	1	-	-	1	-
Slide sets	-	-	1	-	-
Movies (Crop Improvement or Certification)	-	-	1	-	-
Short courses	1	-	-	-	-
Radio	-	2	2	-	1
Television	2	-	1	-	-
State fairs	1	1	1	-	-
Seed clinics	-	-	2	-	-

Table XVI summarizes the best means of promoting the sale of certified seed for all regions in the United States. State officials indicated the best means were: personal contacts and visitations, seed directories, radio, field days, seed clinics, exhibit materials, classified ads, local newspaper releases and seed news.

TABLE XVI. FREQUENCY AND RANK BY CERTIFICATION OFFICIALS OF MATERIALS IN RESPECT TO THEIR VALUE IN INCREASING THE VOLUME OF CERTIFIED SEED SOLD IN THE UNITED STATES

Means of promotion	Poor	Fair	Good	Very good	Excellent
Personal contacts & visitations	-	5	6	9	8
Spring seed directory	-	1	8	7	6
Seed directory	-	7	11	7	1
Fall seed directory	1	1	7	10	2
Radio	-	9	9	2	5
Field days	2	2	8	4	3
Certification standards	7	7	12	3	-
Exhibit materials	1	2	6	4	3
Local newspaper releases	1	3	4	5	4
Classified ads	1	1	4	5	4
Seed clinics	-	4	7	4	2
Seed news	1	5	5	4	3
State-wide news releases	1	3	6	4	2
State fairs	4	5	9	-	2
Demonstration plots	1	3	5	3	3
Television	4	3	3	2	5
County fairs	2	3	6	3	1
Farmer classes	-	2	2	3	4
Survey	1	3	5	-	3
Posters	-	2	3	3	2
Bulletins	3	3	1	4	3
Circulars	3	1	6	-	2
Leaflets	2	4	6	1	1
Pamphlets	-	1	1	1	2
Folders	1	2	4	1	1
Booklets	-	1	-	-	-
Reports	2	4	1	2	1
Price lists	-	-	2	1	1
Mimeographed materials	3	5	3	3	-
Extension reports	1	10	3	1	-
Fact sheets	-	-	1	-	-
Circular letters	2	10	4	2	-
Reprints from farm magazines	1	2	1	1	-
Certification material packet (Available to youth leaders)	1	-	3	2	-

TABLE XVI. (continued)

Means of promotion	Poor	Fair	Good	Very good	Excellent
Pencils & pens	1	1	2	-	-
Mat & sheet suggestions (To grower)	1	2	2	2	-
Printed letterheads for certified seed producers	-	2	1	-	-
Certificates for certified seed processors	1	2	3	-	-
Contests	1	4	3	-	-
Sponsor awards	2	5	6	1	-
Signs	-	1	2	2	1
Billboards	-	1	-	-	1
License tags	1	-	1	-	1
Calendars	-	-	1	1	2
Matches	1	-	-	-	-
Napkins	1	1	1	-	-
Other specialties	1	2	-	-	-
Drill box stickers	-	1	-	1	-
Bags	-	3	4	3	-
Decals or stickers	1	1	1	2	-
Trophies	2	1	2	2	-
Slide sets	-	2	5	3	2
Movies (Crop Improvement or Certification)	1	1	3	-	4
Short courses	1	5	-	3	1
Others	-	-	1	-	-

The opinions and evaluations by the certified seed growers is an important part of evaluating the effectiveness of any publicity or educational program. The growers produce and use the certified seed and have close associations with their neighbors, who are potential users of certified seed. With this thought in mind, the producers of certified seed

should be in a good position to give certification officials some valuable information regarding existing procedures on educational work and promotion of certified seed.

Response of Certified Seed Growers

The following discussion will be based on the grower questionnaires. The results have been tabulated by regions and in some cases totaled on the United States as a whole.

Certified seed growers were asked if the county extension agent, other extension personnel and local seedsmen actively promoted certified seed in their areas. The results for the four regions and the United States are reported in Table XVII. The figures by region were quite consistent with one another. The percentage of growers by regions who felt that the county extension agent actively promoted certified seed in his area is as follows: 96 per cent in the Western Region, 95 per cent in the Northeastern Region, 93 per cent in the North Central Region and 88 per cent in the Southern Region.

These results prove that most county extension agents actively encouraged the use of certified seed. Other extension personnel in the county did not have the high percentage response as the county agent, but this is understandable because some of these personnel would be working in areas of specialization which would not relate in any way to the possible promotion of certified seed. In the Northeastern

Region, all the growers reporting expressed the feeling that seedsmen were actively promoting certified seed. The growers in the other three regions ranged from 65 per cent to 71 per cent reporting that seedsmen in their area were actively promoting certified seed.

TABLE XVII. PER CENT OF CERTIFIED SEED GROWERS WHO FEEL THAT CERTIFIED SEED IS ACTIVELY PROMOTED IN THEIR AREAS BY EXTENSION PERSONNEL AND PRIVATE SEED DEALERS

<u>Sources of promotion</u>	<u>Yes</u>		<u>No</u>	
	<u>Number</u>	<u>Per cent</u>	<u>Number</u>	<u>Per cent</u>
<u>North Central Region</u>				
County Extension Agent	90	93.75	6	6.25
Other Extension Personnel	64	73.56	23	26.44
Local Seedsmen	62	65.26	33	34.74
<u>Southern Region</u>				
County Extension Agent	55	88.70	7	11.30
Other Extension Personnel	46	80.70	11	19.30
Local Seedsmen	43	71.66	17	28.34

TABLE XVII. (continued)

<u>Sources of promotion</u>	<u>Yes</u>		<u>No</u>	
	<u>Number</u>	<u>Per cent</u>	<u>Number</u>	<u>Per cent</u>
<u>Western Region</u>				
County Extension Agent	55	96.49	2	3.51
Other Extension Personnel	41	71.92	16	28.08
Local Seedsmen	38	69.09	17	30.91
<u>Northeastern Region</u>				
County Extension Agent	23	95.83	1	4.17
Other Extension Personnel	20	86.95	3	13.05
Local Seedsmen	24	100.00	-	---
<u>United States</u>				
County Extension Agent	223	93.30	16	16.70
Other Extension Personnel	171	76.33	53	23.67
Local Seedsmen	167	71.36	67	28.64

The object of any educational or promotional program is to inform the farmers on the merits of certified seed and to promote the ultimate use of this seed by farmers. Growers

were asked to rate their neighbors on whether or not they thought that they were informed on the merits of certified seed. These neighbor farmers are the people that certification program must reach in order to increase the general use and acceptance of certified seed. This is verified by Table XVIII where it shows that 62 per cent to 71 per cent of the growers in the four regions of the United States felt that their neighbors were uninformed on the value of certified seed.

TABLE XVIII. SENTIMENTS OF CERTIFIED SEED GROWERS CONCERNING THEIR NEIGHBORS' INFORMATION ON MERITS OF CERTIFIED SEED ACCORDING TO REGION

Regions	Informed		Uninformed	
	Number	Per cent	Number	Per cent
North Central	27	28.42	68	71.58
Northeastern	9	37.50	15	62.50
Western	22	36.67	38	63.33
Southern	18	30.00	42	70.00

Certified seed producers were asked if they received encouragement to produce certified seed from the county extension agent or the local vocational agriculture instructor. According to Table XIX, 45 per cent received

encouragement to produce certified seed from the county agent and 19 per cent from the vocational agriculture teacher. Between 75 per cent and 100 per cent of the growers in these four regions were unaware of any encouragement from local vocational agriculture instructors. According to Figures 1-4, pp. 96-99, where years of experience of growers are indicated, it is evident that most of the producers have been growing seed for many years. One may assume that they would not have had the opportunity to attend vocational agriculture classes.

TABLE XIX. THE EFFORTS OF AGRICULTURAL EXTENSION AGENTS AND VOCATIONAL AGRICULTURE INSTRUCTORS REGARDING ENCOURAGEMENT TO GROWERS TO PRODUCE CERTIFIED SEED

	<u>Encouragement</u>		<u>No encouragement</u>	
	<u>Number</u>	<u>Per cent</u>	<u>Number</u>	<u>Per cent</u>
<u>North Central Region</u>				
County Extension Agent	42	43.30	55	56.70
Vocational Agriculture Inst.	19	20.21	75	80.79
<u>Western Region</u>				
County Extension Agent	33	55.93	26	44.07
Vocational Agriculture Inst.	13	24.07	41	75.93

TABLE XIX. (continued)

	<u>Encouragement</u>		<u>No encouragement</u>	
	<u>Number</u>	<u>Per cent</u>	<u>Number</u>	<u>Per cent</u>
<u>Northeastern Region</u>				
County Extension Agent	11	42.40	15	47.60
Vocational Agriculture Inst.	--	---	18	100.00
<u>Southern Region</u>				
County Extension Agent	25	40.32	37	59.68
Vocational Agriculture Inst.	10	17.54	47	82.46
<u>United States</u>				
County Extension Agent	111	45.59	133	54.51
Vocational Agriculture Inst.	42	18.83	181	82.17

Table XX shows the attitudes of the certified seed growers regarding the future in growing certified seed. Most of the respondents thought that the production of certified seed was a profitable enterprise, and that they would continue producing such seed. Growers, in general, anticipated profitable returns from certified seed production and indicated that they wished to continue growing such seed.

TABLE XX. CERTIFIED SEED PRODUCERS' ATTITUDES CONCERNING PROFITABILITY, OUTLOOK AND THEIR FUTURE PARTICIPATION IN CERTIFIED SEED PRODUCTION

Regions	Considered profitable enterprise		Desirable future outlook to producing certified seed		Plan to continue	
	Number of respondents reporting					
	Yes	No	Yes	No	Yes	No
North Central	77	17	86	9	86	9
Northeastern	22	2	22	1	24	1
Western	47	10	51	6	58	6
Southern	53	6	56	2	60	2

It is interesting to note where farmers may obtain certified seed in the different regions as shown in Table XXI. Over 75 per cent of all the growers revealed that they could obtain certified seed from seed dealers. In the

Northeastern Region, 96 per cent of those reporting could purchase certified seed from a seed dealer in their area. Since this region is largely a seed consuming area, this high percentage is not unusual. The seed dealer is the final person to contact many farmers who purchase seed. When these dealers handle this product and actively promote its use, certified seed will be used more extensively in that locale. Between 64 per cent and 76 per cent of those reporting in the United States could obtain certified seed from other farmers in their areas. This percentage is in direct relationship with the percentage reporting certified seed available from independent seed dealers. The more seed which is sold in the area by farmers will cause a corresponding reduction in the amount sold by the seed dealers. Price is usually the determining factor because dealers are usually undersold by farmers and are discouraged from handling this product. In the North Central Region, the grain growing area of the United States, 62 per cent of the farmers could secure seed from independent elevators. In the other regions availability of seed from this source was limited.

TABLE XXI. LOCAL SOURCES AS REPORTED BY GROWERS WHERE FARMERS MAY PURCHASE CERTIFIED SEED, BY REGIONS

<u>Regions</u>	<u>Independent seed dealer Per cent</u>	<u>Independent feed dealer Per cent</u>	<u>Independent elevator Per cent</u>	<u>Coop- erative Per cent</u>	<u>Farmer Per cent</u>	<u>Others Per cent</u>
North Central	77	45	62	57	76	14
Northeastern	96	80	16	84	64	12
Western	80	52	42	49	75	9
Southern	78	50	23	62	64	12

Tables XXII thru XXVI tabulate the grower opinion of those individuals in the area who promote certified seed. The growers in the United States reported that the county extension agents, seed dealers and farm neighbors were the leading promoters of certified seed. Certified seed is inspected by a public service organization; therefore, the county agent should actively promote this product. Just as he should encourage the development of better livestock by his county farmers, he should also encourage the use of better quality seed to provide a greater income and better living conditions for the people to whom he offers service. Seed dealers were ranked second in promoting certified seed in these areas because they have this product for sale. Neighbors ranked third in frequency of response as a source of promoting certified seed. Farmers do a lot of over the fence selling and seed moves from farm to farm and neighbor to neighbor. Other individuals and organizations were mentioned as promoting certified seed. They were College of Agriculture, Crop Improvement Associations, Soil Conservation Service, State Department of Agriculture, State Seed Laboratory, vocational agriculture instructors, radio and television, bankers, seed growers, plant breeders, fathers-in-law, fathers and others.

TABLE XXII. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES
IN PROMOTING CERTIFIED SEED IN THE NORTH CENTRAL REGION

Individual or agency	Rank order		
	Frequency		
	First	Second	Third
County Extension Agent	38	23	14
Seed Dealers	24	28	13
Neighbors	1	9	22
Vocational Agriculture Instructors	3	11	9
College of Agriculture	12	4	4
Crop Improvement Association	3	3	2
Father	2	2	2
Demonstration Plots	1	-	-
Soil Conservation Service	1	-	-

**TABLE XXIII. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES
IN PROMOTING CERTIFIED SEED IN THE NORTHEASTERN REGION**

<u>Individual or agency</u>	<u>Rank order</u>		
	<u>Frequency</u>		
	<u>First</u>	<u>Second</u>	<u>Third</u>
County Extension Agent	10	5	3
Seed Dealers	5	6	3
Neighbors	1	3	3
College of Agriculture	1	-	3
Crop Improvement Association	2	1	1
State Department of Agriculture	1	-	-
Others	-	2	-
Vocational Agriculture Instructor	-	1	-

TABLE XXIV. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES
IN PROMOTING CERTIFIED SEED IN THE SOUTHERN REGION

Individual or agency	Rank order		
	Frequency		
	First	Second	Third
County Extension Agents	28	8	7
Seed Dealers	13	23	6
Neighbors	4	10	7
Vocational Agriculture Instructors	1	3	7
Others	1	1	3
College of Agriculture	3	1	1
Crop Improvement Association	2	-	2
Plant Breeder	1	-	-
Radio & Television	-	-	1
Bankers	-	-	1
Seed Growers	-	-	2

**TABLE XXV. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES
IN PROMOTING CERTIFIED SEED IN THE WESTERN REGION**

<u>Individual or agency</u>	<u>Rank order</u>		
	<u>Frequency</u>		
	<u>First</u>	<u>Second</u>	<u>Third</u>
County Extension Agent	24	9	8
Seed Dealers	11	21	7
Neighbors	5	8	11
Others	3	4	2
Vocational Agriculture Instructors	3	2	1
Crop Improvement Association	2	1	1
College of Agriculture	2	-	1
Father	1	1	-
Father-in-law	1	-	-
Soil Conservation Service	1	-	-
State Seed Laboratory	-	1	1

TABLE XXVI. GROWERS' RANKINGS OF INDIVIDUALS AND AGENCIES
IN PROMOTING CERTIFIED SEED IN THE UNITED STATES

Individual or agency	Rank order		
	Frequency		
	First	Second	Third
County Extension Agent	98	45	32
Seed Dealers	53	78	29
Neighbors	11	30	43
Vocational Agriculture Instructor	7	17	17
Crop Improvement Association	7	4	5
Others	4	7	5
Father	3	3	2
Soil Conservation Service	2	-	-
Demonstration Plots	1	-	-
State Department of Agriculture	1	-	-
Father-in-law	1	-	-
Plant Breeder	1	-	-
State Seed Laboratory	-	1	1
Seed Growers	-	-	2
Radio & Television	-	-	1
Bankers	-	-	1

Tables XXVII thru XXX reveal the percentage of growers who recognized the use of various media to promote certified seed. The awareness of a promotional media by farmers is important. If certified seed growers are unaware of the use of a certain medium, the value of that medium is lessened in promoting the use of certified seed by farmers. The leading items which 80 per cent or more of the growers in the North Central Region reported in use were: seed directory, demonstration plots, certification standards, state fairs, field days, bags, extension reports and classified ads. Of producers in the Northeastern Region, 80 per cent or more listed extension reports, local newspaper releases and field days as the media of which they were most aware. Eighty per cent or more of the Southern Region growers reported they were most aware of the use of bags, seed directories, personal contacts and visitations, field days, demonstration plots and certification standards.

All of the growers in the four regions were aware of the use of field days and demonstration plots. North Central and Southern producers were more aware of the use of bags as a means of promotion than those in the Northeastern and Western Regions.

TABLE XXVII. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE NORTH CENTRAL REGION, 1959

<u>Means of promotion</u>	<u>Per cent of growers reporting use of each means in their state</u>
Seed directory	94
Demonstration plots	86
Certification standards	84
State fairs	83
Field days	82
Bags	82
Extension reports	81
Classified ads	80
Personal contacts & visitations	78
Bulletins	78
Reports	77
County fairs	76
Seed news	72
Spring seed directory	72
Signs	72
State-wide news releases	70
Radio	70
Exhibit materials	69
Movies (Crop Improvement or Certification)	69
Circulars	68
Local newspaper releases	67
Fall seed directory	67
Seed clinics	65
Pamphlets	62
Others	61
Leaflets	58
Folders	57
Reprints from farm magazines	55
Fact sheets	54
Price lists	53
Posters	52
Printed letterheads for certified seed producers	50
Survey	50
Mat & sheet suggestions (To Grower)	49
Mimeographed materials	48
Booklets	48

TABLE XXVII. (continued)

<u>Means of promotion</u>	<u>Per cent of growers reporting use of each means in their state</u>
Circular letters	47
Short courses	47
Farmer classes	47
Television	45
Pencils & pens	41
Billboards	40
Certificates for certified seed processors	39
Decals or stickers	37
Slide sets	35
Contests	35
Sponsor awards	35
Matches	34
Calendars	29
License tags	28
Rulers	25
Trophies	26
Other specialties	22
Thermometers	22
Drill box stickers	21
Certification material packet (Available to youth leaders)	21
Napkins	19
Place mats or cards	15
Paper cups	11

TABLE XXVIII. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE NORTHEASTERN REGION, 1959

Means of promotion	Per cent of growers reporting use of each means in their state
Extension reports	96
Local newspaper releases	86
Field days	81
Reports	81
Demonstration plots	79
Personal contacts & visitations	78
Price lists	78
Certification standards	77
State fairs	77
County fairs	76
Bulletins	75
Classified ads	75
Movies (Crop Improvement or Certification)	74
Seed directory	70
Exhibit materials	70
Seed clinics	65
Mimeographed materials	65
Circulars	64
Farmer classes	64
Radio	62
Leaflets	61
State-wide news releases	60
Fact sheets	59
Pamphlets	57
Circular letters	56
Short courses	53
Spring seed directory	52
Folders	50
Booklets	50
Bags	50
Others	50
Certificates for certified seed processors	48
Survey	44
Reprints from farm magazines	43
Mat & sheet suggestions (To growers)	42

TABLE XXVIII. (continued)

<u>Means of promotion</u>	<u>Per cent of growers reporting use of each means in their state</u>
Seed news	40
Signs	37
Posters	37
Contests	36
Television	35
Fall seed directory	31
Printed letterheads for certified seed producers	31
Pencils & pens	31
Sponsor awards	26
Decals or stickers	26
Slide sets	25
Billboards	17
Trophies	16
Calendars	15
Certification material packet (Available to youth leaders)	12
License tags	5

TABLE XXIX. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE SOUTHERN REGION, 1959

<u>Means of promotion</u>	<u>Per cent of growers reporting use of each means in their state</u>
Bags	92
Seed directory	91
Personal contacts & visitations	90
Field days	84
Demonstration plots	80
Certification standards	80
Extension reports	79
State fairs	76
Bulletins	75
Movies (Crop Improvement or Certification)	73
Spring seed directory	72
Reports	71
Fall seed directory	68
Pamphlets	68
County fairs	67
State-wide news releases	67
Signs	67
Circulars	65
Short courses	64
Radio	64
Others	63
Leaflets	63
Folders	62
Classified ads	60
Booklets	60
Seed clinics	57
Mimeographed materials	56
Local newspaper releases	56
Posters	55
Circular letters	55
Certificates for certified seed processors	53
Contests	52
Seed news	51
Decals or stickers	50
Price lists	47

TABLE XXIX. (continued)

<u>Means of promotion</u>	<u>Per cent of growers reporting use of each means in their state</u>
Exhibit materials	47
Sponsor awards	47
Television	46
Reprints from farm magazines	46
Farmer classes	45
Calendars	44
Fact sheets	43
Mat & sheet suggestions (To grower)	43
Printed letterheads for certified seed producers	43
Billboards	42
Survey	38
License tags	35
Slide sets	30
Other specialties	26
Pencils & pens	26
Certification material packet (Available to youth leaders)	20
Trophies	19
Matches	18
Rulers	14
Thermometers	12
Drill box stickers	9
Place mats or cards	7
Napkins	2
Paper cups	2

TABLE XXX. THE VARIOUS MEANS OF PROMOTION GROWERS BELIEVE TO BE IN ACTUAL USE IN THEIR RESPECTIVE STATES AS REPORTED BY THE WESTERN REGION, 1959

Means of promotion	Per cent of growers reporting use of each means in their state
County fairs	76
State fairs	75
Field days	73
Demonstration plots	70
Personal contacts & visitations	67
Bulletins	65
Certification standards	64
Reports	63
Extension reports	61
Seed directory	59
Booklets	50
Movies (Crop Improvement or Certification)	50
Seed news	48
Pamphlets	48
Local newspaper releases	48
Classified ads	45
Bags	44
Circulars	43
Mimeographed materials	40
State-wide news releases	40
Certificates for certified seed processors	40
Seed clinics	40
Leaflets	39
Reprints from farm magazines	36
Spring seed directory	34
Folders	33
Circular letters	33
Printed letterheads for certified seed producers	32
Radio	30
Farmer classes	30
Price lists	29
Short courses	28
Others	27
Television	24
Fact sheets	24

TABLE XXX. (continued)

Means of promotion	Per cent of growers reporting use of each means in their state
Survey	22
Mat & sheet suggestions (To grower)	20
Fall seed directory	20
Contests	18
Signs	14
Posters	14
License tags	14
Decals or stickers	11
Calendars	10
Trophies	9
Pencils & pens	8
Sponsor awards	6
Billboards	6
Slide sets	6
Other specialties	5
Place mats or cards	4
Thermometers	4
Rulers	4
Matches	3

Growers were asked to list in order of preference the five means (from a list provided) which they thought would aid in selling the most certified seed in their area. Tables XXXI thru XXXV rank the media used in promoting certified seed. Growers in the North Central Region ranked the seed directory and personal contact as the most effective means of promoting the sale of such seed. Considering the total response, the means most frequently ranked in order were: seed directory, demonstration plots, personal contacts, local newspaper releases, classified ads, other state-wide news releases and field days. Each of these media was ranked by at least 25 growers in this region.

TABLE XXXI. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE NORTH CENTRAL REGION

Items	Rank order				
	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Fourth</u>	<u>Fifth</u>
Seed directory	26	9	3	2	1
Demonstration plots	7	6	12	10	6
Personal contacts & visitations	12	8	5	5	8
Local newspaper releases	6	9	5	7	5
Classified ads	6	7	5	5	6
State-wide news releases	5	11	5	3	3
Field days	4	5	3	8	5
Others	6	1	4	3	7
Extension reports	4	6	5	5	1
Radio	2	3	7	7	2
County fairs	-	3	3	5	8
State fairs	-	5	2	3	5
Certification standards	3	3	3	1	3
Signs	-	3	5	1	3
Seed news	2	3	2	3	1
Bulletins	-	1	4	1	4
Spring seed directory	5	2	1	-	1
Farmer classes	2	1	1	2	3
Bags	-	2	2	2	2
Fall seed directory	3	2	2	-	-
Reprints from farm magazines	-	2	1	3	-
Billboards	-	2	1	3	-
Price lists	1	1	-	1	2
Television	1	-	1	1	2
Exhibit materials	2	-	1	1	-
Circulars	-	-	1	1	2
Movies	-	1	-	-	2
Short courses	-	1	2	-	1
Seed clinics	-	-	-	-	1
Fact sheets	-	2	-	-	-
Circular letters	-	-	-	1	-
Survey	-	-	-	-	1
Napkins	-	-	-	1	1

Northeastern growers (Table XXXII) ranked extension reports, demonstration plots, personal contacts and seed directories as a good means of promoting certified seed. However, certification officials did not rank these items as high as did the growers. Most of the officials ranked state and local news releases as very good to excellent means of selling certified seed.

TABLE XXXII. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE NORTHEASTERN REGION

Items	Rank order				
	First	Second	Third	Fourth	Fifth
Extension reports	3	3	2	-	1
Demonstration plots	3	1	2	1	2
Personal contacts & visitations	3	1	1	1	1
Seed directory	3	-	-	2	1
Field days	1	1	-	3	1
County fairs	-	2	-	3	1
Local newspaper releases	2	2	-	-	1
State-wide news releases	1	3	-	1	-
State fairs	-	3	-	-	2
Radio	2	-	1	-	1
Classified ads	1	-	1	-	2
Farmer classes	-	1	1	1	1
Bulletins	-	1	3	-	-
Bags	1	1	1	-	-
Reprints from farm magazines	1	-	-	1	-
Seed clinics	1	-	-	-	2
Circulars	-	1	1	-	-
Contests	-	1	1	-	-
Slide sets	-	-	-	1	-
Movies (Crop Improvement or Certification)	-	-	-	-	1
Short courses	-	1	-	-	-
Seed news	-	-	1	-	-
Certification standards	-	1	-	-	-
Leaflets	-	-	-	1	-
Pamphlets	-	-	-	-	1
Others	-	-	-	1	-
Booklets	-	-	1	-	-
Fact sheets	-	-	-	2	-

The growers in the Southern Region (Table XXXIII) ranked personal contacts and visitations and demonstration plots as the best means. Certification officials, as shown in Table XIV, page 52, ranked personal contacts and visitations as good to excellent as a means of promotion but did not respond to demonstration plots as a good means. Radio was considered as an acceptable means of promotion by both groups. Other means which ranked frequently were: certification standards, extension reports, movies, seed directories, field days and state-wide news releases.

TABLE XXXIII. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE SOUTHERN REGION

Items	Rank order				
	First	Second	Third	Fourth	Fifth
Demonstration plots	5	2	4	3	4
Personal contacts & visitations	7	1	2	2	3
Others	4	3	3	3	3
Field days	1	4	4	2	1
Extension reports	3	1	2	5	-
Movies (Crop Improvement or Certification)	3	2	1	3	2
Radio	2	3	4	-	2
State-wide news releases	-	3	3	3	2
Seed directory	2	4	4	-	-
Local newspaper releases	1	2	2	4	-
Certification standards	4	1	1	-	2
Bags	1	2	1	2	2
Television	3	1	1	2	-
Farmer classes	1	2	-	1	3
State fairs	-	1	3	2	1
County fairs	-	-	2	3	2
Price lists	-	2	1	1	1
Circulars	-	2	1	-	2
Short courses	1	1	2	-	-
Reprints from farm magazines	-	2	1	1	-
Signs	1	1	1	-	-
Bulletins	-	1	1	1	-
Fall seed directory	1	1	-	-	-
Leaflets	1	1	-	-	-
Folders	1	1	-	-	-
Contests	1	1	-	-	-
Seed clinics	1	-	-	-	1
Exhibit materials	1	-	-	-	-
Printed letterheads for certified seed producers	1	-	-	-	-
Slide sets	-	1	-	-	-
Mimeographed materials	-	-	-	1	-
Circular letters	-	-	-	1	-
Trophies	-	-	-	1	-

Western Region growers (Table XXXIV) ranked demonstration plots, personal contacts and visitations, seed directories and field days as the leading means of promotion in this region. Officials of this same area, reported in Table XV, page 55, ranked in order of preference: seed directories, personal contacts and visitations, field days, demonstration plots, county fairs, and local and state-wide news releases.

TABLE XXXIV. FREQUENCY AND RANK BY GROWERS OF MEANS OF PROMOTING CERTIFIED SEED IN THE WESTERN REGION

Items	Rank order				
	First	Second	Third	Fourth	Fifth
Demonstration plots	7	2	3	3	4
Personal contacts & visitations	7	3	3	2	3
Seed directory	6	4	2	1	2
Field days	1	7	2	3	2
Certification standards	1	2	1	2	2
Radio	-	2	1	1	4
Others	5	-	-	1	1
State fairs	4	1	2	-	-
Bulletins	-	-	5	1	1
Extension reports	3	1	1	-	1
Local news releases	2	1	-	1	2
Seed clinics	1	1	1	-	2
Reports	-	-	1	2	2
Price lists	-	1	1	1	2
Television	-	1	2	1	1
Circulars	1	2	1	-	-
Seed news	1	1	-	1	1
Short courses	-	2	1	1	-
Farmer classes	-	-	1	2	1
Exhibit materials	1	1	-	1	-
Fact sheets	-	1	2	-	-
Circular letters	-	1	-	1	-
Reprints from farm magazines	-	1	-	1	-
Fall seed directory	-	1	-	1	-
Spring seed directory	-	1	-	1	-
Pamphlets	-	1	1	-	-
Matches	-	-	-	-	1
Sponsor awards	-	-	-	-	1
Decals or stickers	-	1	-	-	-
Movies (Crop Improvement or Certification)	-	-	-	2	-
Booklets	-	-	1	-	-
Survey	-	-	-	1	-
Posters	-	-	-	1	-
Bags	-	-	-	1	1

The frequency and rank by growers of means of promoting certified seed in the United States is shown in Table XXXV. The use of demonstration plots, personal contacts and visitations and seed directories were ranked by a majority of all seed producers to be, in their opinion, the best means of promoting certified seed. Next in order of frequency were participation in field days, local news releases and extension reports. Farmers observe and are conscious of the above means of promoting certified seed. The writer feels that certification agencies can do a better job of educating the farmers about the values of certified seed use by an expanded use of these reported means.

TABLE XXXV. FREQUENCY AND RANK BY GROWERS OF MEANS OF
PROMOTING CERTIFIED SEED IN THE UNITED STATES

Items	Rank order				
	First	Second	Third	Fourth	Fifth
Demonstration plots	22	11	21	17	16
Personal contacts & visitations	29	13	11	10	15
Seed directory	37	17	9	5	4
Field days	7	17	9	16	9
Local newspaper releases	11	14	7	12	8
Extension reports	13	11	10	10	3
Others	15	4	7	8	11
State-wide news releases	6	17	8	7	5
Radio	6	8	10	8	9
State fairs	4	10	7	5	8
Classified ads	7	7	6	5	8
County fairs	-	5	5	11	11
Farmer classes	3	4	3	6	8
Bulletins	-	3	13	3	5
Bags	2	5	4	5	5
Certification standards	8	7	4	3	7
Television	4	2	4	4	3
Seed news	3	4	3	4	2
Fact sheets	-	12	2	2	-
Circulars	1	5	4	1	4
Signs	1	4	6	1	3
Price lists	1	4	2	3	5
Reprints from farm magazines	1	5	2	6	-
Movies (Crop Improvement or Certification)	-	3	1	5	5
Spring seed directory	5	3	1	1	1
Fall seed directory	4	4	2	1	-
Seed clinics	3	1	1	-	6
Short courses	1	4	5	1	1
Exhibit materials	4	1	1	2	-
Billboards	-	2	1	3	-
Reports	-	-	1	2	2
Folders	2	1	-	1	-
Contests	1	2	1	-	-
Circular letters	-	1	-	3	-

TABLE XXXV. (continued)

Items	Rank order				
	First	Second	Third	Fourth	Fifth
Leaflets	1	1	-	1	-
Booklets	-	-	2	-	-
Printed letterheads for certified seed producers	1	-	-	-	-
Mimeographed materials	-	-	-	1	-
Sponsor awards	-	-	-	-	1
Posters	-	-	-	1	-
Pamphlets	-	1	1	-	1
Decals or stickers	-	1	-	-	-
Slide sets	-	1	-	1	-
Napkins	-	-	-	1	1
Matches	-	-	-	-	1
Trophies	-	-	-	1	-
Survey	-	-	-	1	1

Figure 1 shows the mean number of years experience growers have had producing certified seed in the North Central Region. Indiana and Wisconsin growers have had 21 years experience in producing certified seed. Ranking second in years of experience were Ohio with 20 and Illinois and North Dakota with 18. The other states in order of years experience were: Nebraska (16), Missouri and Iowa (13), Minnesota (12), Michigan (10), Kansas (8) and South Dakota (5) years. The average number of years experience by the North Central producers was fifteen years.

In the Northeastern Region, according to Figure 2, the number of years experience in producing certified seed was as follows: Pennsylvania (17), New York (15), Maryland (13), Vermont (12) and Delaware (5) years. Twelve years was the average experience growers had in the production of certified seed in this region.

Figure 3 gives similar information for growers in the Southern Region. The following average years of experience were: North Carolina (15), Texas (12), Alabama and Arkansas (11), Kentucky (10), Tennessee and Virginia (9), Oklahoma (7), Mississippi, Georgia and South Carolina (6) years. The average number of years experience in this region was nine.

Figure 4 shows the years of experience of growers in the Western Region. Oregon and Wyoming producers had an average of 15 and 11 years, respectively. The other states listed in order are: Utah (10), New Mexico and Idaho (7), Colorado (6), California (5), Nevada and Washington (4), and Montana (3) years. The mean years experience for this region is seven years.

From the information on these figures, it would seem that the seed producers in the North Central Region have been growing seed for certification purposes for the longest

time. Western Region growers are still comparatively new at this type of production.

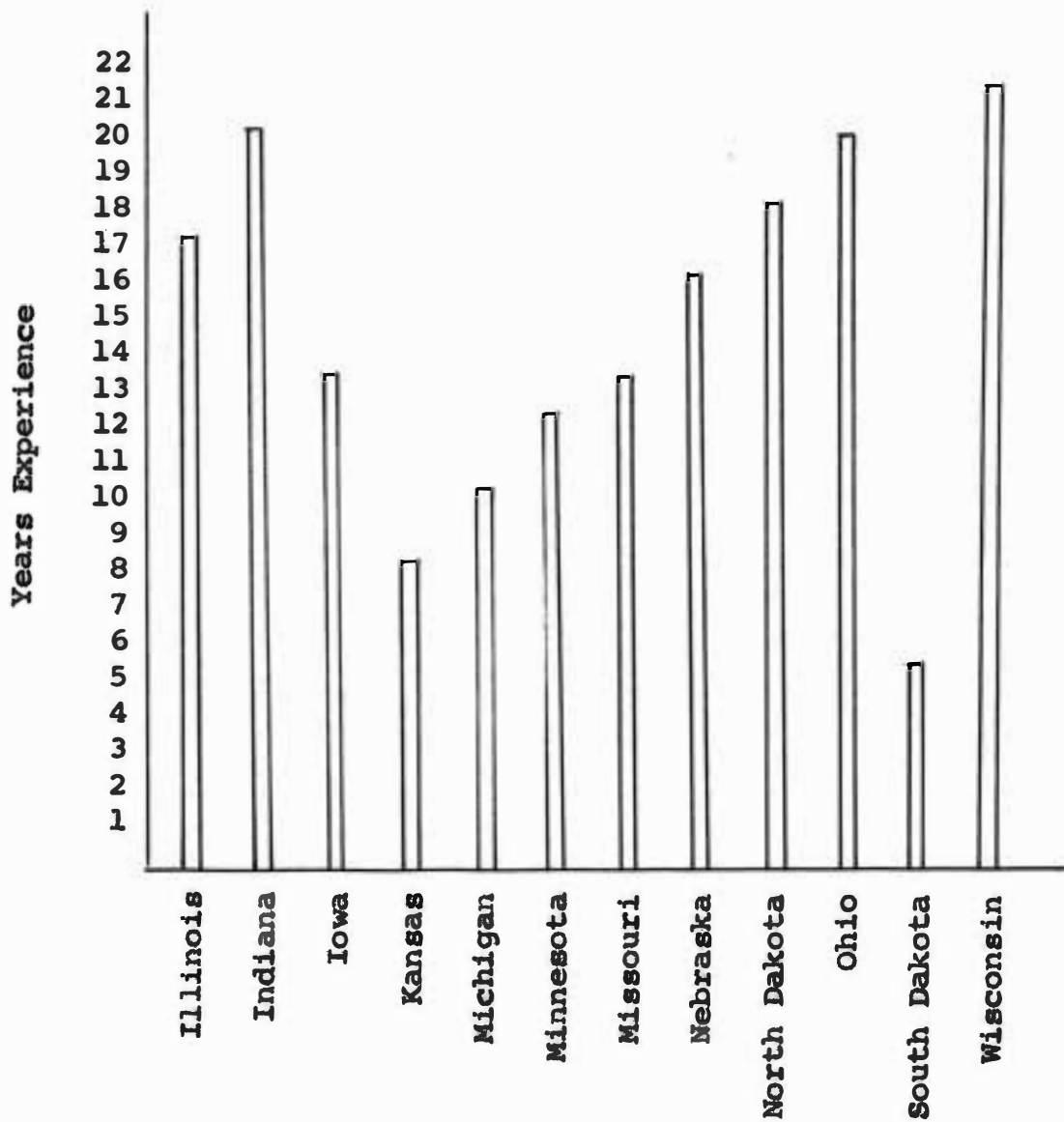


Figure 1. Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the North Central Region, 1959.

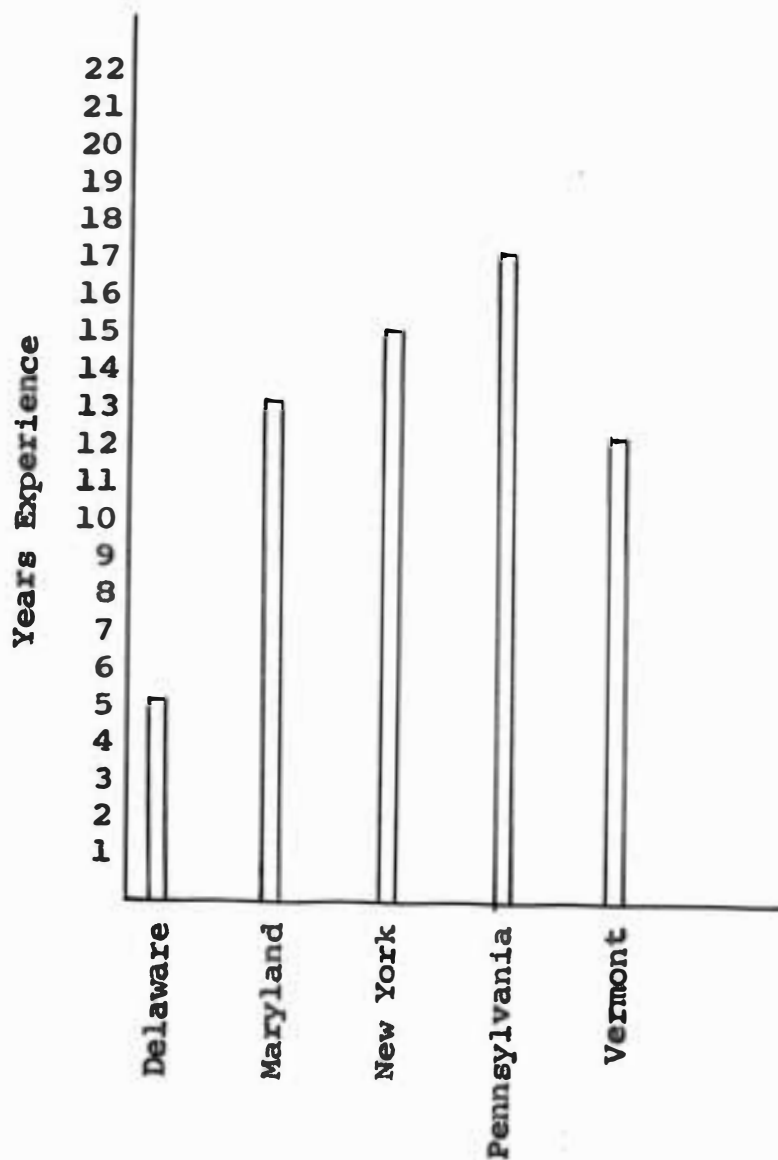


Figure 2. Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Northeastern Region, 1959.

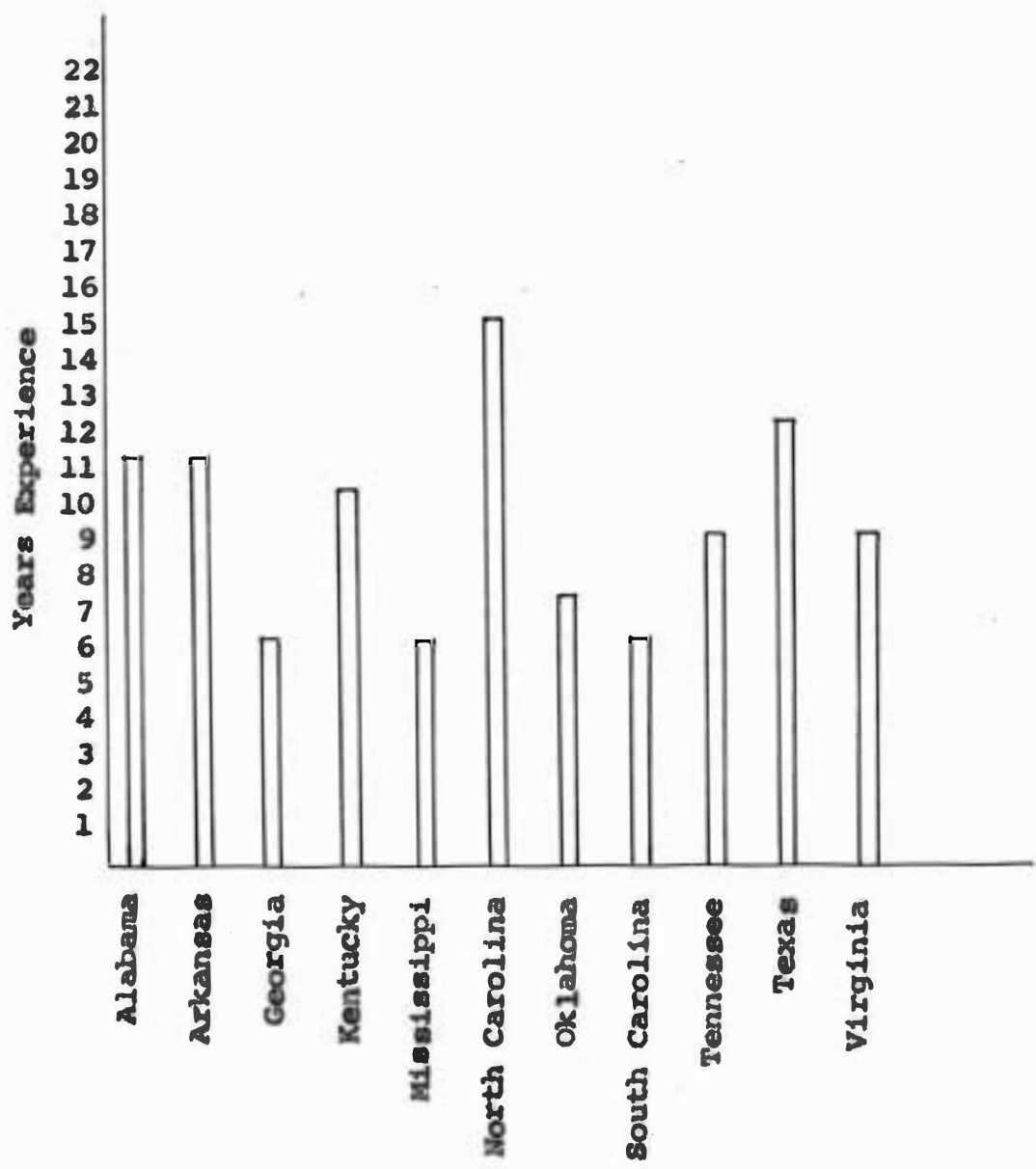


Figure 3. Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Southern Region, 1959.

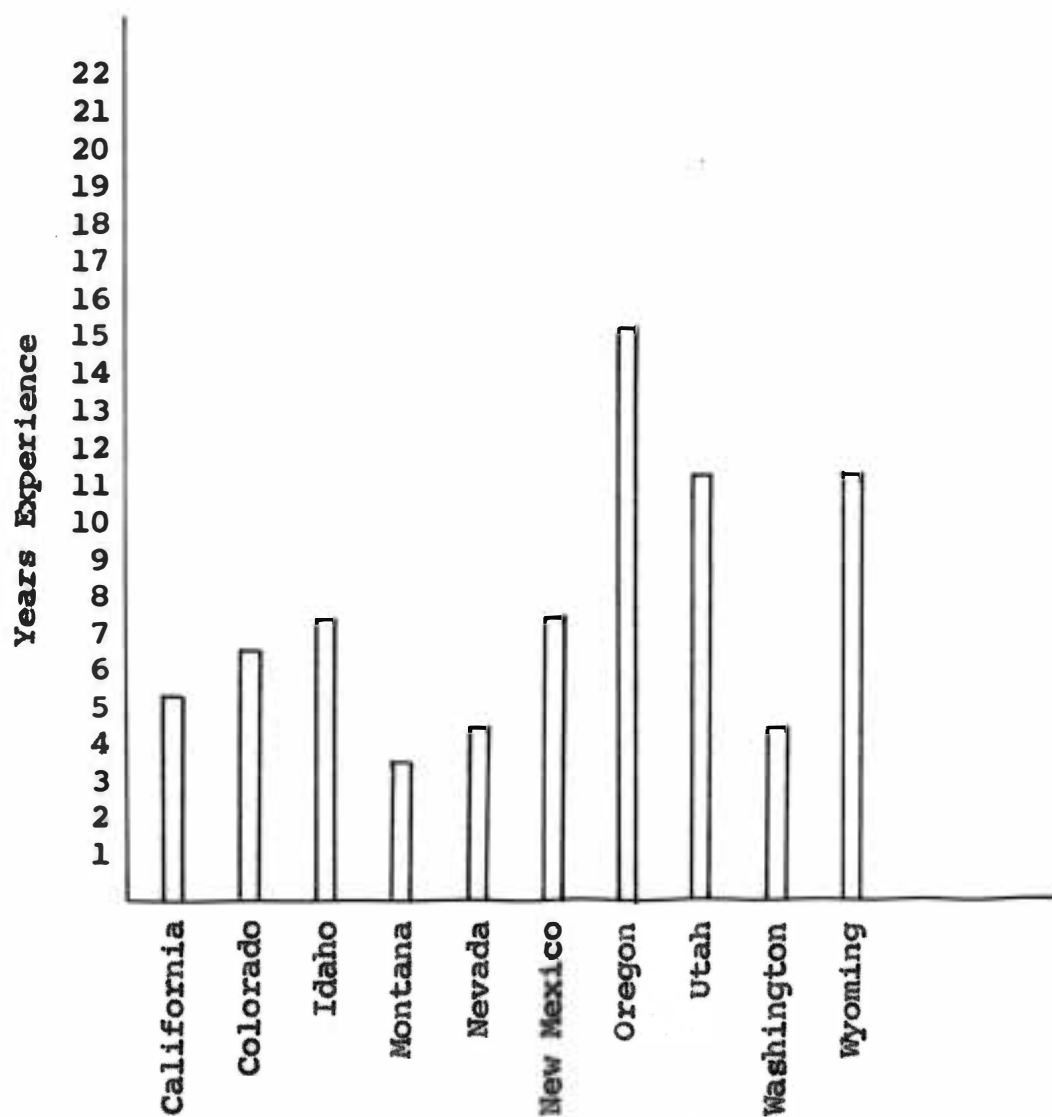


Figure 4. Mean Number of Years of Experience in Producing Certified Seed by Respondents According to States in the Western Region, 1959.

Seed Producer Suggestions On Better Ways Of Promoting Certified Seed

The problem of determining the best means of promotion of certified seed is a difficult one to solve. A request was made for opinions and suggestions of improved or different means of promoting the sale of certified seed. Growers were asked what could be done in their states to help promote certified seed. The growers from the 38 reporting states presented many criticisms and helpful suggestions which may help certification officials to formulate an improved certification program and to increase consumption of certified seed in the United States.

The suggestion was made that county agents and other extension personnel should stress the advantages of planting certified seed to ALL farmers. A more aggressive program should be used with emphasis on the positive approach, not only to the leading farmers in a community but to ALL farmers regardless of economic status. The testing programs should be supported more vigorously and results from demonstration plots, field days and other testing media be distributed to ALL farmers in the counties. Recommendations should be made only on seed varieties which are certified for that particular area. Many cases were cited where varieties were

recommended for planting in the county by the county agent, but were not being certified or even recommended by state extension personnel. Growers thought that any seed recommended by the county agent and sold in the county should be certified in order to insure a pure supply of this seed. By doing this, more seed planted in an area could be certified. Several farmers suggested that county agents edit a newsletter which should include certified seed news and reports of experimental results of certified seed varieties. Such letters should inform the farmers of the benefits to be derived from the use of certified seed.

Farmers desired that more personal interest be shown in them and their problems. To do this the suggestion was made that more personal contacts be made by extension service personnel and certification officials. Tables XI, page 45, and XXXV, page 92, show that certification officials and growers felt that personal contact and visitation was one of the most effective means of promoting the sale of certified seed. Growers in the United States made this comment many times.

Information describing the certification process should be sent to farm advisors, farm managers, bankers and

others advising farmers. Materials explaining the reasons for using certified seed to increase profits should be made available to these individuals. All individuals who lend money to farmers should be aware of the certification program.

Seedsmen and elevator operators should be informed periodically concerning experimental work on certified seed. The advantages of using certified seed for general planting should be general knowledge to these people.

Before certification agencies and extension personnel can report on new and up-to-date information, more research must be done with demonstration plots, test trials and drill box surveys. An economic advantage must be shown in favor of certified seed if it is going to be effectively sold. Growers felt that this type of work was at a standstill, and that more research along this line should be done. More tests involving the evaluation of certified seed versus noncertified seed of the same variety should be conducted. The value of approved certified varieties should be tested with non-approved varieties. This type of expanded testing was requested by most producers in the United States to bring out the many merits of certified seed.

Growers also asked for expanded research to develop new and better crops. New sorghum and corn hybrids and other

crops with greater yield potential and disease resistance should be developed.

The certification process and program should be thoroughly explained to the farmers. The feeling of the certified growers was that farmers in the community were not aware of these facts. If this program were known the demand for certified seed would be increased. The education of the farmers should include the procedure of certifying seed and the values afforded by its use.

Farmers should bring pressure to bear on administrators in positions related to agriculture. Their support must be secured if continued and effective operation of any program is to succeed. Such public officials should wholeheartedly give their active support to public service programs such as seed certification.

Growers from every state expressed the opinion that more attention should be given to our youth. Vocational agriculture instructors and county agents should have certification materials made available to them for distribution and study by FFA and 4-H groups. These students of agriculture should have an opportunity and be encouraged to produce certified seed as project work because young minds are receptive to new practices and procedures and should not be

neglected.

Quality production of certified seed was discussed by many growers. Most suggestions were in respect to the quality of the end product. Penalties should be imposed on growers who sell an inferior product. The standards should be raised to insure a more uniform quality of seed. Closer controls should be imposed on growers by having more rigid field and sampling inspections. Too many tags are received by producers before the seed is properly cleaned and processed. Some growers stated that some certified seed was not as pure as required by the seed certification standard. These incidents do immeasurable harm to the certification program.

More restriction should be imposed on "fly-by-night" seed salesmen. Responses like this were common among growers. Uninformed farmers buy large quantities of seed from these salesmen, and often they are stuck with high priced, unadapted varieties.

Producers thought that promotional materials which were edited and mailed by either extension service or certification personnel should be more concise. Materials presented should be brief and illustrations used to tell the story wherever possible. In the growers' opinion most

farmers will not study a bulletin or other published materials if it requires much concentration.

Certified seed producers and seed processors should be inspected before being allowed to produce and process certified seed. The growers' opinion was that more stringent inspections would help maintain a superior product.

Growers thought that a method to stop "cut-throat pricing" was needed. Many suggestions were given as possible ways to minimize this competition. Growers should have agreements in the area on prices for certain crop varieties. Group advertising could also help alleviate this problem. The formation of selling agencies was also a common suggestion. Price-cutting was a leading criticism by growers, and one of the factors determining whether a farmer would continue to produce certified seed.

Comments were received on the use of tags. Blue tags, the symbol of certified seed, should be used on only certified seed; and a uniform blue tag color be adopted by all the states certifying seed. The use of many different colored tags was confusing to growers.

Suggestions on selling seed on a pure live seed basis were made. Producers thought selling on this basis might

increase the sale of high quality certified seed. Selling in this manner would also promote better cleaning of the product.

Men associated with the promotion of certified seed must have a sympathetic understanding of the farmer and his problems. The number one attribute an individual must have is to understand the farmer's differences, to be able to get along with farmers and to be accepted by the farm community. If agricultural workers cannot do this, all the knowledge they possess will be unobserved and lost. Suggestions indicated that training courses in farmer psychology be required of prospective agricultural workers.

Growers thought that an organization, similar to the Alfalfa Seed Council, could be organized in states or areas to promote the sale of certified seed. Bringing the growers together, they felt, would strengthen the price of certified seed and would promote the use of such seed.

The item most frequently mentioned was that better relations with seedsmen and wholesalers were needed. Many comments and suggestions were made in regard to this situation. Growers mentioned that nothing hurts seedsmen-grower relationship more than when a producer sells some of his seed to the seedsmen and turns around and undersells this

very seedsman. Closer contact with seedsmen on prices and supply should be maintained. Growers should accept less money for large or entire production purchases by seedsmen.

These foregoing suggestions and comments by the growers should prove beneficial to all certification officials. Unbiased evaluation of the present program with suggestions for improvement should serve as a basis for enlarging and advancing the certification program.

SUMMARY

Evidence secured through this study indicates the use of many media by certifying agencies in the United States to promote certification programs. The indication by growers on the effectiveness of certain media was not always in agreement with what certification officials had made evident. These differences can help officials to evaluate and to alter future media which are to be used to promote certified seed.

The promotion of certified seed requires a certain amount of financing and all states which carry on a certification program in the United States do allocate some money for the purpose of education and promotion. States budgeted or used, for educational and promotional purposes, from 100 dollars to 30,000 dollars annually. The revenues used were received from assessment of the grower, from the extension program and from college funds.

There were many media used to educate farmers to the realization that it is profitable to plant certified seed. Fifty-nine media and means of promoting certified seed were listed by certification officials; all of these items were reported to be in use by at least one state.

Officials in the United States listed the media which were being used in each of the four regions. The media which were being used by over 50 per cent of the states included: certification standards, personal contacts and visitations, state-wide news releases, radio, seed directories, local news releases, field days, seed news, county fairs, extension reports and demonstration plots. These same officials ranked the media in respect to the promotion of seed sales and the general certification program in the states. Personal contacts and visitations, and local newspaper releases were rated most frequently by officials as a good to excellent means of promoting the certification program. The growers ranked, in order of frequency, seed directories, personal contacts and visitations, and demonstration plots as the best means of promoting the sale of certified seed. Certified seed producers indicated that demonstration plots and personal contacts and visitations were observed by farmers. Therefore, these media were most beneficial in encouraging other farmers to purchase and to use certified seed.

Over 70 per cent of the growers responding reported that county extension agents, other extension personnel and

local seedsmen actively promoted the use of certified seed. Fifty-four per cent of the same producers stated that they as growers received no encouragement from the county agent to produce certified seed.

The results of this study indicate that many producers are not aware of the promotion media. The avenues of communication are not clearly defined, and greater effort should be made to close this breach.

To increase the sale of certified seed in an area more farmers must be apprised of the advantages of such seed. Over 60 per cent of all certified growers in the United States expressed the feeling that their neighbors were uninformed on the merits of certified seed. These neighbors are the rank and file farmers in the county who must use more certified seed if the certification program and the sale of certified seed is to move increasingly forward. This can be accomplished with a properly promoted educational program to publicize the superior product.

The attitude of the certified producers on the future and profitability of certified seed production was convincing. Eighty-nine per cent of the growers considered certified seed production a profitable enterprise. Ninety-two per cent of the growers looked to a desirable future

for producing certified seed, and 93 per cent planned to continue production. Growers do have faith in producing certified seed. With proper education of all farmers certified seed will be used; and production of certified seed will be a profitable division of our farm economy.

All areas have many different sources of certified seed supply, but over 75 per cent of all the grower respondents reported that certified seed was marketed by independent seed dealers. The percent of dealers handling certified seed would indicate that seed dealers do handle considerable certified seed. The fact that farmers usually have their last contact with the seed dealers before planting would indicate that certification promotional programs should put considerable time and effort to keep these dealers well informed about the product they are marketing. More proof of the dealers' part in selling certified seed was brought out when growers ranked seed dealers second only to county extension agents in promoting the use of certified seed.

The various means of promotion that growers actually believe in use in their area was quite revealing. Personal contacts and visitations, field days, demonstration plots and state fair participation were means that over 75 per cent of all growers thought were in use in their state.

Even though there was some discrepancy in the extent of their use in the state, these media were observed by growers. Growers were aware of their use and this fact alone should warrant greater utilization of these means to promote the sale of certified seed. Indications are that farmers are still interested in attending state fairs, field days and demonstration plots, and that personal contact with farmers is the best means of conveying the facts about the advantages of certified seed.

The average experience of growers producing certified seed is over 10 years. The fact that 93 per cent of these growers believed that they would continue to produce certified seed is proof that the future of certified seed production will progressively continue to improve. With the continued effort of certification officials to implement educational and promotional programs encouraging use of certified seed, the grower will have a continued and expanding market for his product.

RECOMMENDATIONS

The excellent grower response to many questions enables the writer to make some recommendations to certification officials. The recommendations presented are based on grower opinions and responses. The problem of increasing the amount of certified seed sold and of creating an interest in the certification program is one with which certification officials will always be confronted. The writer would like to make these recommendations:

1. Certification officials should increase the use of personal contacts and visitations, demonstration plots, field days, local newspaper releases and extension reports.

2. Some of the media in use at the present time, of which growers are unaware, should be deleted or altered to increase effectiveness. Media that are not observed by growers has a doubtful effectiveness.

3. More emphasis should be put on youth programs involving the 4-H Clubs and the Future Farmers of America. These young people, many of whom are the farmers of tomorrow, are inclined to absorb new ideas and practices and will be the certified seed producers of the future. Some states have made some progress towards this project,

but greater assistance should be given to county agents and vocational agriculture teachers by most of the states. Course outlines and reference material packs should be made available for these teachers.

4. All farm advisors should be better informed about certified seed. Certification materials should be put in the hands of these officials either by mailing, or preferably, by personal contact. Seed dealers should be in this category because actually they are farm advisors on seed requirements. A seed dealer can either be the best promotor for certified seed or he may be the most inefficient.

5. More research on the values of certified seed is needed. The cost of such a program may have to be financed from promotion funds, which many states have already established.

6. Better liaison between grower and seed dealer should be formed. Growers and dealers in an area should work together to market certified seed. To accomplish this harmonious functioning, the problems of the dealer and the grower must be discussed and some compromise by both parties be made so that a working agreement can be

reached.

7. Written materials which are used in the promotion of certified seed should be less technical, more concise and preferably illustrated. Bulletins, circulars and leaflets that are written in scientific phraseology are not studied by the average farmer. Grower response brought this fact out very clearly.

8. Marketing organizations should be formed with the purpose of giving growers a closer unity. Agreement on price of certified seed offered by two growers in the same area should depend on the quality of the seed. Marketing organizations would prevent "price-cutting" and would tend to regulate the supply and price of certified seed for producers participating.

9. Some certified seed is of inferior quality. By stricter enforcement of certification regulations these unfortunate occurrences could be prevented. Growers from the four regions expressed the need for closer inspection in field and sampling procedures.

Finally, certifying seed is a public service to insure a supply of genetically pure plant materials. This public service can only hope to exist through the continued

use of certified seed by farmers. Competition is becoming keener. The education of farmers on the value of planting certified seed must continue. The promotion of certified seed by certification agencies must be improved to keep pace with our fast moving economy. It is hoped that the results of this study and the recommendations made may assist certification officials in planning future educational and promotional programs throughout the United States.

LITERATURE CITED

- Douglas, J. E., "Promotion A Must -- But by Whom?", 1957 Annual Report of the International Crop Improvement Association, pp. 160-164.
- Meyers, W. M., "Where Do We Go From Here in Seed Certification?", 1957 Annual Report of the International Crop Improvement Association, pp. 178-186.
- Minimum Seed Certification Standards, p.7, International Crop Improvement Association, Chambers Printing Company: Clemson, South Carolina, 1959.
- Rules and Regulations Under the Federal Seed Act, United States Department of Agriculture, U. S. Government Printing Office, 1956.
- Sutherland, J. L., Jr., "Promotion of Certified Seed Through Education", 1958 Annual Report of the International Crop Improvement Association, pp. 114-120.
- Welch, Frank J., "Cooperation Between Extension, Experiment Station, and Crop Improvement Personnel", 1954 Annual Report of the International Crop Improvement Association, pp. 90-95.
- Wiener, W. T. G., "On the National Level", 1955 Annual Report of the International Crop Improvement Association, pp. 160-162.
- "To What Extent Should a Certification Agency Carry Out an Educational Program?", 1956 Annual Report of the International Crop Improvement Association, pp. 61-62.

APPENDIX

Appendix A

Enclosed please find a questionnaire concerning the production and sale of certified seed in your state.

Your help is needed and by filling out the enclosed questionnaire you will be contributing information necessary to help evaluate the use of educational and promotional materials in the sale of certified seed.

This questionnaire is being sent to eleven other certified seed growers in your state. Names were selected at random from your state seed directory.

The success of this study will largely depend upon the answers received, and it is hoped the return will be 100 per cent. After completing the questionnaire, please mail it in the enclosed self-addressed envelope.

I appreciate the time and effort on your part, and thank you in advance for your contribution to this study.

With kind regards, I am

Sincerely,

J. Duane Colburn
Assistant Agronomist

Appendix B

CERTIFIED GROWER QUESTIONNAIRE

Please answer the following questions by placing a mark (x) in the appropriate column.

	<u>Yes</u>	<u>No</u>
1. Does your County Extension Agent promote the use of certified seed?	_____	_____
2. Do other Extension personnel in your county promote the use of certified seed?	_____	_____
3. Does your local seedsman or seed dealer actively promote the use of certified seed?	_____	_____
4. Do you feel that all of your neighbors are well informed about the advantages of using certified seed?	_____	_____
5. Did the County Agent encourage you to go into certified seed production?	_____	_____
6. Did the Vocational Agriculture Instructor encourage you to go into certified seed production?	_____	_____
7. Do you feel that producing certified seed is a profitable enterprise for you?	_____	_____
8. Do you feel there is a future in the production of certified seed?	_____	_____
9. Do you plan to continue growing certified seed?	_____	_____
10. How many years have you produced certified seed? _____ years.		

11. Please check the following items yes if they are used to help promote the sale of certified seed in your state and county. Check them no if you have never been aware of their use.

YesNoSeed directorySpring seed directoryFall seed directorySeed newsCertification standardsBulletinsCircularsLeafletsPamphletsFoldersBookletsReportsPrice listsMimeographed materialsExtension reportsFact sheetsCircular lettersReprints from farm magazinesCertification material packet(Available to youth leaders)Exhibit materialsSurveyState-wide news releasesLocal newspaper releasesClassified adsMat & sheet suggestions (To grower)Printed letterheads for
certified seed producersCertificates for certified
seed processorsContestsPostersSponsor awardsSignsBillboardsLicense tagsCalendarsThermometers

Yes No

- Rulers
- Pencils & pens
- Matches
- Napkins
- Paper cups
- Place mats or cards
- Other specialties
- Drill box stickers
- Bags
- Decals or stickers
- Trophies
- Slide sets
- Movies (Crop Improvement
 or Certification)
- Short courses
- Radio
- Television
- State fairs
- County fairs
- Field days
- Demonstration plots
- Seed clinics
- Farmer classes
- Personal contacts & visitations
- Others

12. Which of the above items, in your opinion, aid in selling the most certified seed to farmers in your area? Please list five in order of preference.

1. _____

2. _____

3. _____

4. _____

5. _____

13. Who of the individuals listed below contributed most to your interest in the production of certified seed?

- County Agent
- Vo-Ag Instructor
- Seed Dealers
- Neighbors
- Others (Specify)

Please rank
1st, 2nd and
3rd.

14. From what sources in your trade service area can farmers purchase certified seed? Please mark (x) in the appropriate blank or blanks.

Independent Seed Dealer _____

Independent Feed Dealer _____

Independent Elevator _____

Cooperative _____

Farmers _____

Others _____

15. How do you, the grower of certified seed, pay for promotion, advertising and educational material in your state?

16. In your opinion, what could be done which is not now being done in your area to help promote the sale of certified seed?

Appendix C

Enclosed please find a questionnaire on the educational and promotional materials and media used in selling certified seed and the certification program in your state.

Your help is needed, and by filling out the enclosed questionnaire you will be contributing necessary information to complete a research problem dealing with education and promotion in certification.

This questionnaire is being sent to all the states who have a certification program. Those receiving the questionnaire in the state will be the person in charge of the certification program and the Extension Agronomist. I would like to request that these two individuals please refrain from comparing questionnaires unless some of the factual information is not known. The reason being that two separate opinions are needed to add more value to the material received.

Another questionnaire is being sent to a random sample of certified growers in your state in order to ascertain what factors induced them to grow certified seed and to express their sentiments concerning the methods of promoting the use of more certified seed.

All of the information will be strictly confidential and the questionnaires will be tabulated as a group.

The success of this study will largely depend upon the answers received and it is hoped the return will be 100%.

After completing the questionnaire, please mail it in the enclosed self-addressed envelope.

I hope that this study will be a value to furthering the cause of the certification program.

I appreciate the time and effort on your part and thank you in advance for your contribution to this study.

Sincerely,

J. Duane Colburn
Assistant Agronomist

Appendix D

CERTIFICATION QUESTIONNAIRE
DEALING WITH EDUCATION AND PROMOTION
OF
CERTIFIED SEED AND CERTIFICATION PROGRAMS

NAME _____ TITLE _____ STATE _____

<p><u>Rating</u> 5. Excellent 4. Very Good 3. Good 2. Fair 1. Poor</p>	<p>How would you rate this material in respect to promoting the certification program in your state?</p>		
	<p>How would you rate this material in respect to increasing volume of certified seed sold?</p>		
<p>How often is the material sent out?</p>	<p>Yearly</p>		<p>Certification</p>
<p>What organization pays for this material? Certification - College - State - Grower?</p>			<p>417.75</p>
<p>What is the cost of the material? Please indicate unit or total price.</p>			<p>6,000</p>
<p>If you use this material, how many are used each year?</p>	<p>Yes</p>		<p>Yes</p>
<p>Does your state use this material for education & promotion of certified seed?</p>			
<p><u>EXAMPLE</u></p>			
<p>Seed directory</p>			
<p>Seed directory</p>			
<p>Fall seed directory</p>			
<p>Spring seed directory</p>			
<p>Certification standards</p>			
<p>Bulletins</p>			
<p>Circulars</p>			
<p>Leaflets</p>			
<p>Pamphlets</p>			
<p>Folders</p>			
<p>Reports</p>			
<p>Booklets</p>			
<p>Price lists</p>			

<u>Rating</u> 5. Excellent 4. Very Good 3. Good 2. Fair 1. Poor	How would you rate this material in respect to promoting the certification program in your state?									
	How would you rate this material in respect to increasing volume of certified seed sold?									
How often is the material sent out?										
What organization pays for this material? Certification - College - State - Grower?										
What is the cost of the material? Please indicate unit or total price.										
If you use this material, how many are used each year?										
Does your state use this material for education & promotion of certified seed?										
		Mat & sheet suggestions (To Grower)								
		Printed letterheads for certified producers								
		Certificates for certified seed processors								
		Sponsor awards								
		Posters								
		Signs								
		Billboards								
		License tags								
		Calendars								
		Thermometers								

Rating 5. Excellent 4. Very Good 3. Good 2. Fair 1. Poor	How would you rate these contacts in respect to promoting the certification program in your state?								
	How would you rate these contacts in respect to increasing volume of certified seed sold?								
Who furnishes personnel for this activity? College - Certification - State?									
Number per year									
Does your state use this medium for education and promotion of certified seed?									
		Short courses							
		Radio							
		Television							
		State fairs							
		County fairs							
		Field days							
		Demonstration plots							
		Seed clinics							
		Farmer classes							
		Personal contacts & visitations							
		Others							

QUESTIONS

1. What is the educational and promotional budget for promoting certified seed in your state?

2. If the grower pays for educational and promotional materials, in what way is this carried out?

3. Have any of the afore mentioned materials and media been used for education and promotion in your state and then dropped from use? If so, please list and give reasons for dropping from use.

4. Other comments.
