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PROGRAM PLANNING FOR EXTENSION WILDLIFE DAMAGE CONTROL: RODENTS

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Planning in Wildlife Damage Control

Program planning is a necessary part of any educational program which is intended to progress in an orderly or logical manner. However, it must be realized that extension wildlife specialists often must deal with special sets of circumstances when it comes to resolving problems with wildlife. When faced with a particular damage problem, the wildlife specialist has two options: to act or to react. The choice of which course to take depends on the specific problem and on a number of related factors, such as uniqueness and severity of the problem and community attitudes.

Action simply means that the specialist anticipates certain problems or situations and pre-plans actions or activities to deal with them. In general, this type of pre-planning should be done for educational programs designed to address widespread, recurring or serious wildlife damage (or perceived damage) problems.

The course of reacting to a problem or situation as it arises is sometimes called "fighting fires." Although unpooular with some administrators (particularly those involved in program planning), "fighting fires" definitely has a place when dealing with wildlife problems. Problems that are infrequent, localized or minor can usually be resolved as they arise, with no prior planning necessary. In fact, wildlife specialists should guard against advocating damage control in situations where the affected persons perceive no real problem and where no real threat to health or property exists.

Planning is a Stepwise process of formally organizing a set of intended actions. The plan can be either short or long-range and usually includes a description of the problem or situation, a statement of objectives or goals, and a listing of planned actions or activities. Ongoing programs should be evaluated at periodic intervals, and the evaluation results used to modify the existing plan. One model of how this planning process can be conceptualized is illustrated in Fig. 1.

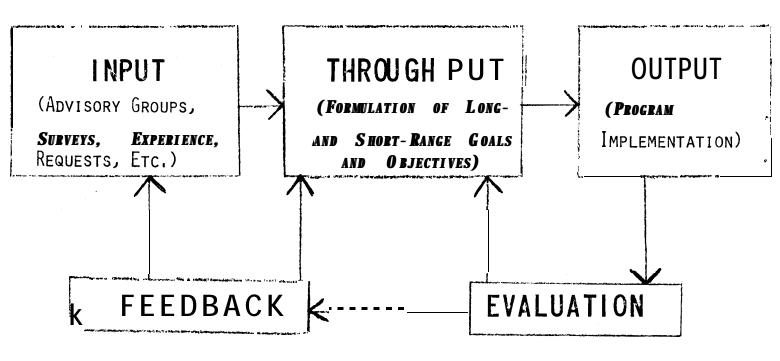
Rodent Problems and Program Planning

A mail survey was conducted among extension wildlife specialists throughout the United States in an effort to determine the importance of rodent damage problems and the degree of program planning being conducted. The questionnaire (Appendix A) was mailed to 46 specialists in 31 states. Thirty-three (72%) of the questionnaires were returned from 27 (87%) of the states. Overall, the respondents indicated that 87 percent of their time was Extension, nearly half of which was related to wildlife damage control.

FIG. 1

A PROGRAM DEVELOPMENT MODEL

(OPEN SYSTEMS ANALYSIS)



Because of obvious regional differences in both the type of rodent problems and the methods for dealing with them, the responses were summarized separately for the eastern and the western parts of the country. In the West, wildlife specialists indicated that 23 percent of their time involved activities related to rodent damage control, compared to only 6.7 percent in the East.

Wildlife specialists in the West felt that their greatest rodent problems were with pocket gophers, ground squirrels, commensal rodents, prairie dogs, beavers and native rats and mice (Fig. 2). In the East, the main species indicated were commensal rodents, beavers, native rats and mice, muskrats and tree squirrels (Fig. 2). In general, the degree of educational effort devoted to each species tended to parallel the severity of damage problems caused by that species.

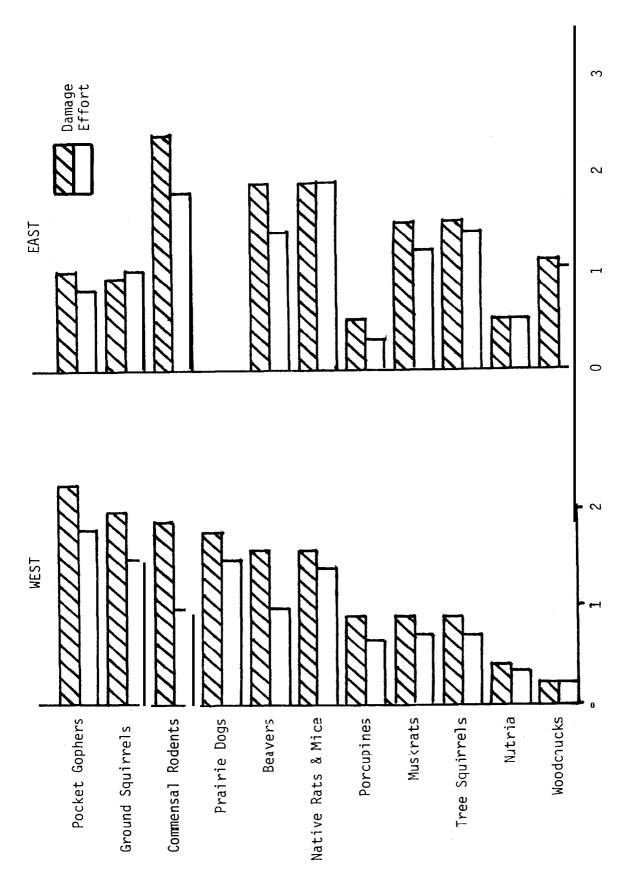
Targeted audience, by commodity or site, is summarized for commensal (non-native) rodents (Table 1), and for native rodents (Table 2). Educational programs concerning commensal rodent problems tended to show a more rural orientation in the West versus a more urban orientation in the East. On the other hand, educational programs for native rodents appeared to differ primarily in the emphasis on forest problems in the East as opposed to rangeland problems in the West.

Table 1. Educational targets by commodity or site: commensal rodents.

| Commodity/Site | Numerical Rank- Eastern U.S. | Numerical Rank- Western U.S. |
|----------------------|---------------------------------|---------------------------------|
| Residences | 1 | 1 |
| Livestock Facilities | 2 | 1 |
| Warehouses | 3 | 7 |
| Municipalities | 4 | 5 |
| Grain Storage | 5 | 3 |
| Industries | 5 | 4 |
| Institutions | 5 | 5 |

Table 2. Educational targets by commodity or site: nat ive rodents.

| Commodity/Site | Numerical Rank- Eastern U.S. | Numerical Rank- Western U.S. |
|----------------------|---------------------------------|---------------------------------|
| Resi dences | 1 | 2 |
| Forests | 2 | 8 |
| Orchards | 3 | 3 |
| Ornamental & Turf | 4 | 5 |
| Livestock Facilities | 5 | 6 |
| Truck Crops | 6 | 7 |
| Feed & Grain Crops | 7 | 3 |
| Rangelands | 8 | 1 |



Relative damage caused by and educational effort devoted to various systematic groups of rodents in the eastern and western U.S. Fig. 2.

The most notable differences in the types of audience contact techniques used by wildlife specialists (Fig. 3) are probably attributable in large part to differences in the types of educational programs employed. Education on controlling rodent damage requires less emphasis in the East and, as a result, many of the problems can be handled by telephone, correspondence or publications. In the West, where nearly one-fourth of the wildlife specialists' time involves work related to rodent problems, public meetings tops the list of audience contact methods. This, plus the overall balance in audience contact methods used in the West, appears to reflect more of a planned approach to education on rodent damage control. However, when asked, 50 percent of the specialists in the West indicated that they set annual goals or objectives in rodent damage control, compared to 60 percent in the East.

Only 37 percent of all the wildlife specialists contacted indicated that they prepared formal plans specifically on rodent damage control. In that planning process, they relied primarily on agent requests, past experience, and input from other agencies (Table 3).

| Table 3. | Program planning | techniques (| used by | extension | wildlife | specialists. |
|----------|------------------|--------------|---------|------------------|----------|--------------|
|----------|------------------|--------------|---------|------------------|----------|--------------|

| | | Specialists 1 | I <u>J</u> sing Technique | |
|------|-------------------------|---------------|----------------------------------|--|
| Rank | Techni que | Number | Percentage | |
| | | | | |
| 1 | Agent Requests | 23 | 28.4 | |
| 2 | Past Experience | 19 | 23.5 | |
| 3 | Other Agency Input | 17 | 21.0 | |
| 4 | Producer Surveys | 10 | 12.3 | |
| 5 | Previous Evaluations | 8 | 9.9 | |
| 6 | Informal Advisory Group | 3 | 3.7 | |
| 7 | Formal Advisory Group | 1 | 1.2 | |

Two-thirds of the specialists said that they evaluated their educational efforts in rodent damage control, but most relied only on "informal feedback" for this information (Table 4).

Table 4. Program Evaluation techniques used by extension wildlife specialists.

| Rank | Techni que | Specialists Number | IJsing Technique Percentage |
|------|-------------------|--------------------|-----------------------------|
| 1 | Informal Feedback | 19 | 70.4 |
| 2 | Questi onnai res | 4 | 14.8 |
| 3 | Damage Surveys | 3 | 11.1 |
| 3 | Interviews | 3 | 11.1 |
| 5 | Attitude Surveys | 1 | 3.7 |

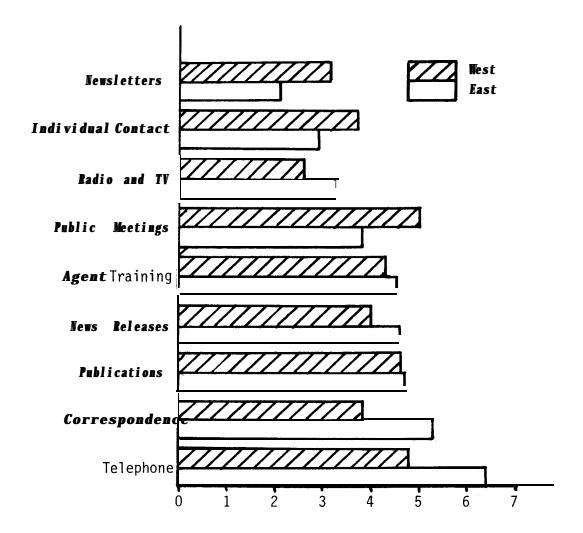


Fig. 3. Relative use of various audience contact techniques by wildlife specialists in the eastern and western U.S.

Discussion and Summary

It became obvious from this survey that, for many wildlife specialists, educational programs for rodent damage control are not something that is planned in advance. This is especially true in the eastern United States where rodent problems are apparently a minor part of most extension wildlife educational problems. In the West, rodent damage problems do require a significant time commitment from wildlife specialists and educational programs with a wide variety of audience contact methods are employed to a greater extent. However, even in the West, there was little evidence of much formalized planning.

Aside from the obvious differences in rodent species causing damage in the East versus those in the West, there were also some notable differences in the types of audiences targeted for educational programs in the two regions. In the East, programs tended to be directed more towards urban audiences and forest resources, whereas in the West they tended more towards rural audiences and rangeland resources.

One possible weakness noted in the planning process for rodent damage control was the lack of formalized evaluations of educational programs by wildlife specialists. Through evaluation, strengths and weaknesses in educational programs can be identified and appropriate modifications made. In addition, a carefully done evaluation may yield clues to additional educational needs that are not being met by current programs.

APPENDIX A

QUESTIONNAIRE----PROGRAM PLANNING FOR RODENT DAMAGE CONTROL

| What percentage of your | time is Extension? | | | |
|---|---|--|--|--|
| What percentage of your | What percentage of your time involves dealing with damage caused by wild- | | | |
| life?(extensio | n)(research)(te | aching) | | |
| What percentage of your time involves activities related to rodent damage control? | | | | |
| | damage related activities, please dis nd return to me. Thanks!) | sregard the remainde | | |
| Please rank the following receive in your rodent d | Please rank the following types of contacts on the basis of the emphasis they receive in your rodent damage control programs. (1 = most emphasis, 9 = least emphasis) | | | |
| individual contact | tnewsletters | news releases | | |
| individual corresp | pondence <u>publi</u> c meetings _ | publications | | |
| c a phbne l s | agent training | radio and TV | | |
| Species Commensal Rats and Mice | <u>Da mage</u> | | | |
| 2 = Moderate, 3 = High). | | Your Effort | | |
| | | | | |
| Native Rats and Mice | | | | |
| Ground Squirrels | | 1999 <u>1999 - 1990 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199</u> | | |
| Prairie Dogs | | | | |
| Woodchucks | | | | |
| Pocket Gophers | | | | |
| Tree Squirrels | | | | |
| Porcupines | | | | |
| | | | | |
| Muskrats | | | | |
| Muskrats Nutri a | | | | |
| | | | | |
| Nutria Beaver Please rate the following | ng on the basis of how many times you problems (1 = infrequently 2 = some | | | |
| Nutria Beaver Please rate the following | problems (1 = infrequently 2 = some | | | |
| Nutria Beaver Please rate the followithem on rodent-related | problems (1 = infrequently 2 = some 3. Other Rodo | times 3 = frequently | | |
| Nutria Beaver Please rate the following them on rodent-related A. Commensal Rodents | problems (1 = infrequently 2 = some B. Other Rode (1) Feed | times 3 = frequently ents | | |

Page 2

| | (4) | Warehouses | (4) Range Crops | | | | |
|-----|------------------------------------|--|---|--|--|--|--|
| | (5) | Municipalities | (5) Orchard Crops | | | | |
| | (6) | Institutions | (6) Ornamental & Turf | | | | |
| | (7) | Industries | (7) Homeowners | | | | |
| | (8) | Other (specify) | (8) Livestock Production | | | | |
| | | | (9) Other (specify) | | | | |
| 7. | specific apprecia | cally to rodent da | mal work plans or other planning materials relating mage problems? Yes No (if yes, Iwould f you could include sample copies of the types of plan- | | | | |
| 8. | Do you s | set annual goals or | objectives in rodent damage control? Yes No | | | | |
| 9. | | check any of the fo | ollowing techniques that you use in planning rodent | | | | |
| | Past Experience | | Formal Advisory Group | | | | |
| | Agent Requests | | Informal Advisory Group | | | | |
| | Input from Other Agencies | | Previous Evaluations | | | | |
| | Producer or Interest Group Surveys | | Surveys Other (specify) | | | | |
| | * the te | * the techniques you find most useful. | | | | | |
| 10. | _ | Do you attempt to evaluate your educational efforts in rodent damage control? Yes <u>.</u> No <u>.</u> | | | | | |
| | If yes, whi | ich of the followi | ing methods do you use? | | | | |
| | Questi onnai res | | Damage or Population Surveys | | | | |
| | Interviews | | Attitude Change Surveys | | | | |
| | Informal | Feedback | Other (specify) | | | | |
| | * the met | thods you feel are | most useful. | | | | |
| 11. | | Please describe any additional aspects of your program planning process that you feel may be of interest to other specialists. | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |