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**Soils, Fertilizer,  
and Agricultural Pesticides  
Short Course  
for County Agricultural Inspectors**

**December 14-17, 1970  
Leamington Hotel, Minneapolis,  
and Minneapolis Auditorium**

**Sponsored by the  
Agricultural Experiment Station  
Minnesota Department of Agriculture  
Minnesota Department of Aeronautics  
Minnesota Agricultural Chemical Association  
Minnesota Plant Food Association**

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## CUSTOM SPRAYERS

Leo M. Lehn, Supervisor  
Fertilizer & Economic Poisons  
Division of Agronomy Services  
Department of Agriculture

### COUNTY INSPECTOR CUSTOM PESTICIDE APPLICATOR

The sprayer exam for 1971 is ready. Your district inspector has an application and test set for each of you and also one for himself. We expect each of you to complete the test as it is very important that you are acquainted with all phases of custom application of pesticides.

Please submit the application form (completely filled out) along with the answer sheets. You may keep the test for your records.

As stated to your groups at the fall conferences, the Department has some concern regarding the inspection of Custom Pesticide Applicators.

A number of counties did an excellent job. Not only were most of the licensed applicators in these counties inspected but the reports submitted were meaningful.

It is disappointing to have to say that in some areas no inspections were made. It was noted that several counties had only a few or in some cases no licensed operators located within the county. However, it was also noted that licensed operators from other areas of the state were doing custom spraying in those areas.

The inspection of custom applicators in any given county is not limited to only those whose address is within that county.

A list of licensed Custom Pesticide Applicators is supplied to you each year. By the time the list for the current year actually gets to you much of the spraying has been done. We realize this and cannot offer any solution as it is not possible to publish a list until a fair percentage of applications have been completed and licenses issued. This does not occur until spraying is already being done in many areas of the state.

The attitude we want you to take for the coming season is this:

- I. Any sprayer or duster in operation in the field is a potential custom operator. By checking all sprayers we hope to get to the new operators as well as the old ones. Use your previous list as a guide.
- II. When you stop to check a sprayer find out the facts. Take a positive attitude.
  - a. Is this the farmers own land and equipment?
  - b. Is the unit operating for hire?
  - c. Is the job an exchange job with a neighbor?
- III. If the unit is operating for hire then find out:

- a. Name and address of the person or company licensed.
  - b. The license number and license qualifications.
  - c. The name of the operator of the equipment.
  - d. Describe the type of equipment.
  - e. Describe the spray job as to crop, chemical, and weather conditions, etc.
  - f. Check the record system used to record the spraying jobs and also how they invoice the customer.
  - g. What corrections if any are needed.
  - h. Be sure equipment is in operation when checked. (Machine shed inspections are no good).
- IV. Be sure this information is recorded on Form 705.
- a. Then submit the original of the report to the District Inspector.
  - b. District inspector then forwards them to the State office, regulalry.
  - c. It is perfectly legitimate to check the same unit more than once in a season.

## THE FUTURE

- I. Sampling of tank solutions not far off
- a. We need to determine whether or not the proper chemical is being used. (Herbicide, Insecticide).
  - b. Whether correct dosage is being applied.
  - c. Whether there is any cross contamination.
- II. We also will be called on to work more closely with other agencies such as:
- State Parks
  - Federal wildlife
  - Conservation
  - Etc.
- These people may seek your advise on hiring an operator. They may also rely on your supervision of the job.
- III. You are getting to be a more important spoke in the wheel. Each extra and new assignment puts you in contact with more people and gives you more control over the problems involved.

If these assignments are handled in a professional manner your status in the public eye will get better and better.

We need the modern tools of agriculture and can keep them for agriculture if everyone concerned with them does a good job of advising, supervising, and regulating.

Agriculture need you and the public needs you.

## WEED PROBLEMS ON RAILROAD RIGHTS OF WAY

M. R. Brooks  
Weed Control Engineer  
Burlington Northern Inc.

### OUTLINE

- I. The railroads in Minnesota and in particular the Burlington Northern Inc.
- II. Organization of the railroad - whom to contact and their headquarters.
- III. Notices served, relative to the control of noxious weeds in specific locations.
- IV. Request of assistance to aid in education of railroad maintenance personnel in identifying and controlling noxious weed species.
- V. Railroad Problems in Weed Control - their background and present situation.



THE FEDERAL WETLANDS AND WEED CONTROL  
Clair T. Rollings  
U.S. FISH AND WILDLIFE SERVICE

- I. The Federal Wetland Program
  - A. Need and Purpose
  - B. Scope - U.S. and Minnesota
  - C. Headquarters and Management Staff in Minnesota
- II Weed Problems Acquired with Wetlands
  - A. Upland Areas
  - B. Wet Meadows Adjoining the Marsh
- III Special Problems in Weed Control
  - A. Number of Wetlands Involved
  - B. Location and Distance of Wetlands from Headquarters
  - C. Land Acquisition
    - 1. Rate of Acquisition
    - 2. Reservation of Use Rights
    - 3. Date of Management Responsibility
  - D. Short Season
  - C. Fund Shortage
- IV Weed Control on Wetlands
  - A. Policy
  - B. Legal Responsibility
    - 1. Carlson Weed Law
  - C. Principal Weeds Involved
  - D. Scope of Weed Control in Minnesota
    - 1. Acres Controlled
    - 2. Funds Spent
    - 3. Personnel Involved



E. Techniques

1. Mowing, Swathing, other Mechanical
2. Pesticides Used
3. Methods of Applying Pesticides

F. Controls on Pesticides Used

1. Need for Clearance
2. Protection for Wildlife

V The Long Range Plan

A. Improved Communication

B. Need for Cooperation

C. Advance Clearance Required

1. For Pesticides Used
2. For Plan of Action
3. For Availability of Funds

D. Permanent Control through Natural Vegetation

E. Ultimate Goals for Federal Wetlands

VI Slides

VII Discussion

## ROADSIDES - REGENERATION, VEGETATION MANAGEMENT, AND WEED CONTROL

L. E. Foote  
Director of Environmental Services  
Minnesota Highway Department

The highway department at present owns somewhere between 180,000 and 200,000 acres of roadside. This is a large, oddly-shaped, grassed and wooded land area. Because it occurs throughout the state on every soil type, in every climate area, in every natural vegetation complex, and in every type of land use area through all types of topography the management problem is diverse with many localized situations. However, during the last few years the highway department has been striving toward the implementation of certain overall basic vegetation management policies. It is expected now that with the added emphasis and guidance of Assistant Commissioner of Maintenance, Mr. Murchie, and with the new administrative procedures and methods which have been and are being implemented by the Maintenance Division that the Department will be better able to practice these vegetation management policies.

The goals of these vegetation management practices are to: (1) naturalize the highway right-of-way with the adjacent land areas, (2) encourage the regeneration of the natural vegetation indigenous to the area, (3) through the above two practices make the highway appear to be more of a natural entity blended into its landscape, (4) reduce maintenance costs, (5) improve the aesthetics of the highway, (6) reduce erosion and water sedimentation, (7) provide strips of natural areas for wildlife, (8) provide a maintenance practice for the roadside appropriate for the topography, and (9) provide a maintenance practice for the roadside appropriate for the land use of the property adjacent to that specific section of highway.

These vegetation management practices are to be more fully implemented through a complete rewriting of the Maintenance Manual section on roadsides. The new section will include the maintenance standards, standards of service, allowable deterioration, and ways of corrective action.

Better grading practices which will blend the roadsides in with the natural land surface are being practiced on new constructions. Rather than stripping, grubbing and clearing the entire right-of-way as once was often the practice, such activities are now confined to the construction limits. Trees and shrubs are saved where ever possible as is existing grassland. When trees cannot be left in place efforts are made to relocate where possible with a large tree mover. On both old and new roadsides, regeneration of the natural vegetation is encouraged on large cut and fill slopes and on rock overburden areas. This is done through seeding mixtures, the introduction of special plant species, fertilization and the cessation of mowing and spraying operations on these areas.

On old roadsides where the vegetation species composition is not the desired, efforts are made to introduce more desirable species. These include low maintenance legumes ( crown vetch for example ) and grasses.

The mowing operations are being more closely controlled. Generalizing, it is thought that in the past an excessive area was mowed while mowing frequency and timing were inadequate. The roadside area mowed where the roadway was bounded by tilled agricultural lands was probably about proper with the exception of certain topographic situations. In the transitional and marginal to submarginal farm regions the area mowed was quite excessive. This was also often the case in the woodlands areas. In the metropolitan areas the acreage mowed was generally excessive while at the same time the frequency was inadequate.

Mowing is practiced for four reasons. These are safety, aesthetics, drainage maintenance and snow drift control. The shoulder mowing and the mowing of sapling woody plants is for safety. Visibility of the area next to the road surface is improved and brush is held back away from the road to make wild game more visible. Ditches are mowed so as to maintain water flow velocity. Urban areas and approaches to towns are frequently mowed to improve aesthetics and for conformance to adjacent land practices. In selected areas tall vegetation is mowed in the fall to prevent snow drifting onto the highway surface.

Aesthetics and the "natural" area strips are improved by fostering the growth of wild flower species such as the asters and many of the goldenrods. The prairie grass species are encouraged. In some places prairie type vegetation will be re-established. This year we seeded 30 acres of prairie grasses on T. H. 71 at Willmar. Various prairie grass species are included in some of our seeding mixtures. Wider use is being made of legumes. This means that the spraying operations must be more controlled and limited as to areas treated.

Sterilant use in cracks around signs and under guardrails will be increased. More effort will be placed on controlling weeds in the shoulder area of the roadside and in wayside rests. Spraying efforts will be concentrated on six weeds or complexes of weeds. These are Canada thistle, leafy sprage, dandelion, poison ivy, the sow thistle complex (annual, perennial and prickly lettuce) and the ragweed complex (common, giant and western). Spraying efforts are to be "leveled-out" through the growing season with less spraying in the spring and early summer and more in late summer and fall. Brush over three feet in height is not to be sprayed. Where possible, it is to be mowed and if mowing is not possible, it is to be hand cut and then stump treated with a herbicide. However, we would prefer to hold the brush in check only where absolutely necessary and then by spraying the suckers and samplings.

November 30, 1970

Weed Control and Lawn Care  
Howard Kaerwer, Turf Specialist  
Northrup, King & Co.

Turf weed control begins with a dense, healthy lawn. Preparation of the lawn area is important in establishing a good lawn. However, as lawns age, they become prone to diseases, insects, compaction, fertility imbalances, climate and other factors which cause turf thinning. Weeds fill the open areas.

All nonsterilized soils contain weed seeds. When a new lawn is established, some of these seeds can be expected to germinate and grow. However, most of these weeds disappear naturally once the new lawn becomes established.

Most weed problems develop after several years as the lawn matures. To prevent or correct this condition only requires knowing something about how turfgrasses and weeds grow and then taking the necessary action.

Weeds develop in lawns because:

1. Incorrect management.

- A. Insufficient or imbalanced fertility.
- B. Excessive or inadequate irrigation.
- C. Mowing too short or removing too much leaf surface.
- D. Incorrect application of herbicides or other chemicals.
- E. Shade problems.

2. Improper grasses.

- A. Unadapted to area or use.
- B. Incorrect balance of species or varieties.
- C. Change of grass balance in the lawn.

3. Soil and soil surface problems.

- A. Restriction of root development.
- B. Compaction.
- C. Thatch.
- D. Slope.
- E. Air drainage.
- F. Traffic.
- G. Fertility.

4. Climate.

- A. Winter injury.
- B. Summer injury or dormancy.
- C. Rainfall.
- D. Pollution effects.

5. Diseases and insect problems.
6. Dispersal of weed seeds and vegetative reproductive organs.

To correct turf quality, it is necessary to assess the reasons for weeds being present and then take the necessary action to correct the existing deficiencies. There is no one universal solution.

The use of herbicides is one method for reducing weed populations. However, without correcting basic faults, even excessive herbicide use will not keep lawns free of weeds.

Dethatching, aerifying and other mechanical means can be used for weed prevention. In some instances, modifying the slope or drainage may be required. Overseeding with adapted grasses will help in some situations. Sometimes it is cheaper and easier to rebuild the lawn, correcting the known faults.

Each weed has its own growth requirements. Certain of the common and more troublesome weeds include Annual Bluegrass, Crabgrass, Quackgrass, Tall Fescue, Timothy and Nut Sedge. Other troublesome Minnesota turf weeds are Chickweed, Clover, Dandelions, Henbit, Plantain, Sheep Soil and Black Medic. Methods for prevention and control of these and other weeds will be discussed.

## PROBLEMS OF A LOCAL WEED INSPECTOR AND SOME SUGGESTED SOLUTIONS

Ira McKown  
Hennepin County Agricultural Inspector  
Maple Plain, Minnesota

I have been asked to present to you some of the problems of the local weed inspector and to make some suggestions that might be beneficial in solving them, or better yet, to prevent them.

I have never been a local weed inspector, so whatever is said here will have to be from the point of view of an observer. This, of course, is the position of most of you. Surely we all work closely with the local man, but when serious problems develop and we are called, there has usually been at least one contact or more made with the property owner and we do not always know how diplomatically it was made.

Local inspectors usually reside in or near the area in which they work. Friends, neighbors, mayors, council members or town board members also reside and own property in the same area. Under these conditions it is a rare local inspector indeed who will perform his duties with total impartiality. Too often town board and village council members are among the lesser cooperative property owners.

It seems desirable for the purpose of making reports, receiving calls and other reasons, to have one person appointed in every municipality to act as local weed inspector, even if that person is one of the town board or a council member. It is much more simple and more effective to deal with only one person during the busy season. However, that single appointment should not in any way relieve the Mayor or town board members of any responsibility. The county agricultural inspector should make crystal clear to each one that by Minnesota law they automatically became weed inspectors when they were elected to office. An appointed local weed inspector is in serious trouble from the beginning if he does not have active support from the local officials. I have experienced such a situation in a village in Hennepin County this past year. The Mayor and Village Manager and his assistant openly opposed our program and the council members were unconcerned. The appointed inspector, a farmer and a long time resident of the village, would not act under the existing conditions. He did serve over 40 "Form 1" (Form One) but was told indirectly that he would have no support if he attempted to enforce the orders. I do not believe that an effective weed control program can be carried out without at least the passive support of the Mayor or Town Board. Such support must be obtained even if a last resort means of serving a "Form 12" is required to get it.

Our Minnesota law states that "It shall be the duty of each local weed inspector to examine all lands, highways, roads, alleys and public grounds in the territory over which his jurisdiction extends for the purpose of ascertaining if the provisions of the weed laws and regulations are complied with." Many inspectors do a commendable job of inspecting their areas, even to walking the wooded areas, railroads, alleys and parklands - too many

do not. Nothing is more discouraging to a local inspector after he has worked hard on his own township or village, than to look over into the next municipality and see all kinds of weeds growing and seeds being blown and carried into his territory. This is a county inspector's responsibility to see that there is a uniform endeavor in all areas! A good local inspector has every right to expect that it is done.

Several local inspectors in Hennepin County have encountered the problem of patches of tall grasses and plants not on the noxious weed list being neglected to the extent that they became a nuisance or a fire hazard. Most grasses, of course, cannot be controlled by our state law by having the cutting done and placing the cost by special assessment on the property owner's taxes. A very effective way of causing the cutting to be done is through a local ordinance. We recommend and help write a section into their ordinances which adequately describes what they consider a nuisance or a hazard. With such an ordinance and if the inspector has a working relationship with the local police department, he may request that a ticket be issued requiring a property owner who has neglected his property to appear in court. If neglect is proven and a hazard or nuisance does exist, the owner is subject to a fine, and in serious continued cases, a jail sentence. I cannot overstate the importance of a good working relationship between the inspectors and the local police, the county sheriff and his deputies. We have on a few occasions been required to call the sheriff who sent a deputy to stand guard over an irate property owner while the local inspector and a mower man proceeded to cut the weeds on his property. Once a man was arrested, taken to court and a fine of one hundred dollars plus costs was imposed upon him because he put a chain and padlock on his pasture gate and refused to let anyone in to cut his weeds. Once a property owner threatened a local inspector with a shotgun. It was only after much pleading and some pressure from me that I was able to get them together in my home. After several cups of coffee and a lunch, an apology was wrung out of the property owner and the inspector was persuaded to drop the charges against him. Again, a local inspector was threatened with an axe, two others with knives and there have been fist fights, cursing matches and law suits during the years that I have been county inspector. Certainly, these types of encounters are not recommended means of achieving a good weed control program. However, as news does get around, I understand that many of you are all too aware that they do occur. When they do occur, it is comforting to have the police and sheriff on your side.

A long list of problems that local inspectors are troubled with could be compiled such as getting competent spray operators and mower men to do work, trying to keep a fair charge for work standards, maintaining good public relations and the ever increasing amount of paper work that must be done. However, for summing up this paper, five might be considered along with some possible suggestions to solve or better yet to avoid them. No order of importance is intended in this list.

#### 1. SERVE NOTICES WITHOUT FAVOR

Local inspectors too often will serve notices (Form 1) on property owners with whom they are not too well acquainted or on someone for whom they have a personal dislike but will pass up or make only a casual stop at the next place. Neighbors compare notes and good public relations or good weed control are not obtained by such a practice. Absolute

impartiality must be shown to every citizen even if it involves serving a Form 1 on the mayor. A mayor or council or board member who is offended by such a fair procedure is likely to be in trouble on other issues too and is not worthy to be a public servant. The county agricultural inspector will and should help and advise in critical cases.

## 2. WORK WITH THE COUNTY INSPECTOR

The county agricultural inspector should always assume the role of trouble shooter in every municipality. If the local inspector is in danger of being open to serious criticism, he should contact his county inspector immediately. If it is agreed between them that a problem does exist, the county inspector can often serve a notice and at the same time make it plain that pressures other than local ones are exerted upon the local inspector. In continued or repeated situations, I believe a Form 12 should be served on the mayor or town board and demand that they act as weed inspectors and do their job. I cannot imagine a situation where a Form 12 should be served on a local inspector. He is appointed by the mayor and can be removed by the mayor. The whole responsibility of weed control in a village or city rests in the office of the mayor. In townships it rests on the town board and especially the board chairman regardless of the appointment of an assistant inspector.

## 3. INVOLVE LOCAL GOVERNMENT

It is very difficult if not almost impossible for a local inspector to do a good job of weed control without the support and cooperation of the local government. Local government means the mayor, council, town board, manager and his assistants and everyone else down to the road supervisor or superintendent and workers. I do not mean they should become zealots for the cause but they should all stand ready to assist where necessary. With local government in mind, I have long advocated that local inspectors serve all Form Ones by certified mail. All notices should be sent in municipality envelopes and if a letter is written, it should be on an official letterhead. If the municipality has an office, it should be mailed from there. A local inspector should avoid sending notices from his home if at all possible. When a notice is sent in this manner, the receiver sees the authority of the local government behind it and not just one person, perhaps his neighbor, telling him what he must do. It also avoids a personal encounter with the inspector and the property owner which may not be pleasant.

## 4. LOCAL POLICE AND SHERIFF

Hennepin County has several local police who are also the appointed local weed inspectors. So far they are doing an excellent job in that capacity and are very effective in enforcing fire hazards and nuisance ordinances, a marginal area not covered by State weed laws, but very important in suburban and village areas. Also, a police uniform and badge shows municipal government involvement and their authority is seldom challenged. Also, a local inspector should cultivate his relationship with the local police and the county sheriff and his deputies. Take them with you on some cases to acquaint them with your problems. They are usually very willing to cooperate. Teach them to recognize on sight such weeds as hemp and others that might be a health hazard. One good way is to obtain "Ricker Mounts" and prepare specimens that can be displayed in their office.



## 5. PUBLICITY, ADVICE, HELP

Last but not least is a help often used the least. Education and publicity are two tools of weed control that are usually not used very much. Teaching the public to recognize various noxious weeds and informing them of the dangers of letting them grow is a beneficial way of obtaining cooperation in weed control. In cities and villages very few people are able to identify even the most common noxious weeds and many less really know why they are required to control them. Most people want to be good law-abiding citizens but they can be only to the extent that they understand and are able to carry out the law. I cannot stress too much the necessity of as much publicity as possible. See that people know who and where they can get help and information. Notices in the papers should state clearly what must be done and when. Study to be able to advise anyone as to the most satisfactory and most economical means of taking care of their individual problem. Be able to direct any person desiring help as to where he can get a mower or sprayer man and make a special effort to get them together. Do not let an irresponsible person come in and take undue advantage of a property owner either by over-charging or slothful work. Follow up to see that satisfaction was given. Stop in to talk to the farmer or city or village property owner who is doing a good job of weed control on his property. Compliment him and ask him for suggestions. He might have some good ones. Also, it might help to reward him further by telling his neighbor what a fine job you think he is doing. His neighbor will come over to look and may go back home and improve his own place. Remember you are there to see that all laws pertaining to weed control are carried out. But also remember that next fall after the weed growing season is over and you think back on the work that was done, your thoughts are going to be much more pleasant about the problems that were prevented with a little honey than about the ones that happened and had to be solved with gall.

MINNESOTA - Frank Fanberg

ACTIVITIES OF THE MINNESOTA SEED SECTION

The Minnesota Seed Inspection Program is under the Division of Agronomy Services. The State of Minnesota has eighty-seven counties and is divided into sixteen districts, with an Agronomy Services Inspector serving each district. Each county has a County Agricultural Inspector whose duties are seed inspection and weed control. He also makes inspection of screenings. The Minnesota Screenings Act is enforced by the Seed Section.

The reports of seed inspection and the seed laboratory activities are as follows:

	<u>1968-1969</u>	<u>1969-1970</u>
Seed Inspection calls made by District Inspectors	2325	1209
Seed Inspection calls made by County Inspectors	9787	6726
<b>TOTAL SEED INSPECTION CALLS MADE</b>	<b>12112</b>	<b>7935</b>
Inspection samples taken by District Inspectors	2978	2316
Inspection samples taken by County Inspectors	3065	2436
Service samples taken by County Inspectors	1185	1073
County Agent service samples	26	7
Screenings samples taken	31	15
<b>TOTAL SAMPLES</b>	<b>7285</b>	<b>5847</b>
Screenings samples in violation	6	3
Interstate seed samples in violation	96	57
Intrastate seed samples in violation	357	303
Total stop-sale orders issued	30	26
Total warnings issued	489	389

KINDS OF VIOLATIONS

Mislabeled as to purity	13	4
Mislabeled as to crop seed	37	36
Mislabeled as to kind	0	0
Mislabeled as to variety	7	1
Mislabeled as to inert	32	61
Mislabeled as to weed seed	12	13
Mislabeled as to germination and hard seed	51	70
No lot number shown	12	1
Incomplete or incorrect label	73	50
No label attached	51	18
No germination date	4	3
Old germination date	50	3
Prohibited weed seed	16	11
Restricted weed seed	151	115
Weed Content over 1%	12	9

## Violations, cont.

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	<u>1968-1969</u>	<u>1969-1970</u>
Purity did not equal 100%	22	7
No tax paid	13	8
Label not legible	3	2
Origin violations	1	1
Miscellaneous	1	0
<b>TOTAL SEED LOTS IN VIOLATION</b>	<b>453</b>	<b>359</b>

ACTIONS FOR INTERSTATE SHIPMENTS:

Number of complaints	15	12
Federal warnings	6	7
Federal no-action cases	1	0
Federal cases pending	7	5
Citations issued	1	0
Interstate warnings issued by Minnesota	96	57

NUMBER OF SEED TAX PERMITS ISSUED	118	24
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NUMBER OF SEED TAX PERMITS IN EFFECT	383	399
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HYBRID SEED CORN INFORMATION

## HYBRID SEED CORN REGISTRATIONS:

New Registrations	231	205
Renewal Registrations	895	918
<b>TOTAL REGISTRATIONS</b>	<b>1126</b>	<b>1123</b>
NUMBER OF COMPANIES REGISTERING HYBRID SEED CORN	69	70

## VIOLATIONS:

Incorrect maturity label on hybrid seed corn	1	0
Hybrid seed corn not registered	1	1

## RESPONSIBILITIES OF A FIELD SUPERVISOR

James Edgar  
Field Supervisor, Minnesota Crop Improvement Association  
St. Paul, Minnesota

I have been asked to explain what my responsibilities are as Field Supervisor for Minnesota Crop Improvement Association. One of my major responsibilities is Field Inspections. The Certified acreage has increased substantially on all crops the past years, however the certified timothy and bluegrass production in the northern counties, Roseau and Lake of the Woods, has grown at a rapid pace. We anticipate even greater acreages of these grasses in the near future.

Before field inspections can be made, the acreages and verification of seed source must be reported to our office in the year of seeding. After this, application for field inspection must be made each year before May 15. Getting the records of new seedings and applications for field inspections in on time requires lots of prodding and supervision. Each spring we schedule "Sign-up Meetings" to assist the growers in making out their applications and check out the correct acreages at this time.

Field inspection of grasses starts the middle of June and involves careful checking for varietal purity, previous crop history and proper isolation between fields and varieties. We estimate field acreage and the yield potential. We also check the kind and prevalence of common weeds and see that prohibited and restricted weeds are controlled. Sometimes field corrections are necessary and the inspector checks later with the grower to see that these corrections have been completed.

In recent years there has been increased O.E.C.D. production of grass seed. O.E.C.D. stands for Organization Economic Cooperation and Development. Mainly this involves bringing seedstocks from a foreign country, producing and certifying the seed in this country under contract production and shipping this production back overseas. There are also other varieties from seedstocks developed in this country and this production is shipped to foreign countries under the O.E.C.D. scheme. This type of production involves the contractor, M.C.I.A., the U.S. Department of Agriculture and foreign governments. My involvement in O.E.C.D. production is field inspection, supervising the processing as to proper identification, sealing of lots and tagging with O.E.C.D. tags.

After grass inspections are completed, about the middle of June, we move directly to field inspection of cereal grains. Our cereal grain acreage has continued to increase each year. Field inspections must be made after crop has headed and before harvest. With a large acreage to be inspected in a limited time, additional help must be hired in advance as well as using all available men from our laboratory to get the inspections completed. Vocational Agriculture instructors, County Agents and Agriculture students who help with inspections must be instructed and supervised during their inspection work.

We also inspect the Foundation Seed fields for Foundation Seedstocks which are grown by contract growers. Since the standards are very rigid for Foundation Seed, much supervision is needed as far as roguing requirements, isolation, and proper handling of this seed.

Sunflower and Soybean inspections follow the cereal grains so field inspections continue until fall.

There are 44 approved cleaning plants in my area. An Approved Plant is one which is so constructed that it can be easily cleaned and has proper cleaning equipment as well as a manager who understands certification procedures and assumes the responsibility of proper sampling and tagging of all certified seed. I make an inspection of the plant facilities annually and recommend any changes or improvements to be made. Periodically I draw check samples and send them to our Lab for comparison to the original sample taken by the processor.

Each year the amount of seed processed by Approved Plants increases and new plants have been built throughout the area. These plants are beneficial to the grower not only in getting his seed processed, but also in finding a market for the seed since they have contacts with Wholesalers and Seed Dealers which the individual grower does not have.

M.C.I.A. cooperates closely with the Minnesota Agricultural Experiment Stations and the Agricultural Extension Service.

Each county has a County Crop Improvement Association whose primary purpose is to promote the production and distribution of pure seeds. I meet with County Associations during their annual meeting to discuss problems pertaining to seed distribution, new varieties available and other varieties on the recommended list. I also discuss standards involved in producing certified seed and answer questions they may have concerning Certified seed production.

The County Crop Improvement Associations also plan projects such as field demonstration plots and they sponsor Seed Shows as part of their educational programs. Usually I assist them in their Seed Shows and participate in the judging activities.

I take part in other educational activities during the winter such as speaking to agricultural classes at various schools. Usually I explain the procedures and requirements for growing certified seed and the advantages of using certified seed.

Every third year we sponsor a "Seed Processors Short Course" in my area. Seed Analysts from M.C.I.A. Laboratory participate in these meetings by helping the processors learn to identify different weeds, other crops, inert matter, etc. This has been very helpful to some of the processors.

Much time is spent in talking to individual growers concerning any production problems that they may have such as verification, rejected lots, sampling, suggested prices of seed, cost of processing seed, shrinkage, etc.

I make calls at other seed elevators to discuss varieties and try to promote their handling of certified seed.

Our participation in the Red River Valley Winter Show is an important part of our educational and public relations program. M.C.I.A. furnishes the Backdrop display for the Crops Show. This display is similar to the one used at the State Fair. M.C.I.A. also furnishes awards for the Certified Class winners, 4-H and FFA judging teams and assists in judging the grain entries.

The County Crop Improvement Associations provide plaques for the Certified winners in each division.

An immense amount of preliminary planning and work is necessary to put on a good crop show. My work begins in the early fall by distributing Winter Shows seed sample bags to processors throughout the area, urging them to save samples which I pick up later. I also urge County Extension Agents to encourage their growers to participate in the Crop Show by bringing in exhibits.

As Assistant Superintendent of the Crops Show, I check out all entries in the Certified Class to see if they are eligible. I assist in making changes in the Premium Lists, setting up the Crops Show display and in making arrangements for the program on Crops and Soils Day. Each year I have made presentation of awards to the FFA and 4-H winners at their Awards Banquet.

In general, my work As Field Supervisor could be summed up as -- Inspections, Public Relations and Education. I hope this has given you some insight as to the various phases of my work.



## THE SEED INSPECTOR'S RESPONSIBILITY AS RELATED TO THE FEDERAL SEED ACT

C. M. Hanson  
Seed Marketing Specialist  
U. S. Department of Agriculture

The Consumer and Marketing Service engages in many diverse activities in order to help this country achieve the best possible marketing systems for farm products. One of its functions is in the area of market regulation. The Federal Seed Act is one of a number of Federal Laws administered by the Consumer and Marketing Service to accomplish its objective in this area. Four field offices are maintained by the Seed Branch to administer the Act. The Minneapolis field office has responsibility for its enforcement in the States of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

The enforcement of seed laws is a very important function of State seed departments. It makes very little difference what statutes are on the books if these statutes are not enforced. In the enforcement of seed laws the seed inspector is the key person. Of course, there are many other important people in the seed law enforcement picture such as seed analysts and the enforcement officer and his staff, but the degree to which effective enforcement is accomplished depends in a very large measure upon what the inspector does or does not do. It is the inspector who is responsible for collecting the most vital pieces of evidence to determine whether or not the law has been violated. He obtains information as to the labeling; he obtains the sample without which, in most instances, a violation of any consequence cannot be proved; and he collects information concerning the description of the shipment. If the inspector fails in obtaining any of these three items, it doesn't matter how well the analyst tests the seed, because the extent of the action will be limited by the lack of essential information or by a poor sample. The inspector, then, can be said to literally make or break every investigation of a seed law violation.

Our objectives will be to (1) impress upon you the importance of your position and, more important, the responsibility which is yours; (2) consider with you the things which every seed inspector should know to do his job well; and (3) provide you with information that will help you become a better inspector.

Perhaps you are wondering about qualifications. The written qualifications for a good seed inspector are given in the Manual for Seed Inspectors, a publication of the Association of American Seed Control Officials. Every seed inspector should have one of these manuals and should be familiar with its contents. When a seed inspector possesses certain qualifications, his supervisor may request a Federal authorization card, form AMS-200. An application blank is filled out which lists the inspector's education and experience. This application blank is forwarded through the field office to the Seed Branch headquarters at Beltsville, Maryland, where a decision is made as to whether or not a card will be issued. Without a college degree in one of the plant sciences, an inspector must have at least one year's experience as a seed inspector. The person can make application when the necessary qualifications or experience have been met.



It is important for all of you to understand that we are striving for 100 percent cooperation between Federal and State agencies. Cooperation is the keystone of our operation. Section 417 of the Federal Seed Act authorizes the Secretary of Agriculture to cooperate with any State or Department agency or political subdivision to carry out provisions of the Act. This cooperation, or agreement, is formalized by a "Memorandum of Understanding" which is entered into by the State and the Federal government. In this Memorandum of Understanding there are certain things which the U. S. Department of Agriculture agrees to do and there are certain things which the State agrees to do. Under this agreement the U. S. Department of Agriculture will (1) have general responsibility for all enforcement activities under the Federal Seed Act; (2) authorize State officials designated by the States, if qualified and mutually acceptable, to draw samples, secure information and records, and otherwise inspect seed subject to the Federal Seed Act within the State; (3) when necessary and desirable, assist the State in adopting such procedure in its inspection work as will tend to provide evidence acceptable under the Federal Seed Act of violations or irregularities; (4) reserve the right to make further investigations when deemed necessary within the State and will undertake responsibilities of any investigations required at that point from which shipments were made; (5) issue written notices or warnings to persons involved in minor violations of the Act when such actions seem adequate; (6) in the interest of orderly procedure, initiate any formal proceedings under the Act or the regulations that appear to be warranted following the investigation; (7) insofar as facilities permit, make tests on samples of seed submitted by the State for the purpose of standardizing methods of testing seed.

The State will do the following:

1. Inspect and draw samples of seed subject to the Federal Seed Act with the State.
2. Submit to the representative of the Department
  - a. samples which represent seed believed to be subject to and in violation of the Act, together with available records thereto; and
  - b. other information or records indicating that the Act has been or is being violated.

It is mutually agreed that (1) the activities contemplated under the Memorandum of Understanding will be conducted in accordance with the Federal Seed Act and the rules and regulations thereunder, supplemented by such instructions as may be issued by the Consumer and Marketing Service; (2) no State official will be expected to proceed beyond the boundaries of the State for the purpose of routine investigations; (3) the initiation of any formal proceedings under the Act or regulations will be undertaken only by the Consumer and Marketing Service in Washington, D.C.; and (4) the Memorandum of Understanding shall not constitute an obligation upon either party relative to the expenditure of funds.

The Seed Branch has formalized such agreements with all of the States and these agreements are renewed annually. However, the renewal is accomplished by letter as an endorsement to the initial signing of the agreements. The complete text of the agreement is not made available each year to the control officials.

At this point let us go back to section 2 of the Memorandum of Understanding which states

what the USDA will do. It reads as follows: "Authorize State officials designated by the State, if qualified and mutually acceptable, to draw samples, secure information and records, and otherwise inspect seed subject to the Federal Seed Act within the State." Section 1 of what the State will do reads as follows: "Inspect and draw samples of seed subject to the Federal Seed Act within the State." So you see, by mutual agreement, these two provisions of the Memorandum have the effect of establishing a Federal seed inspection service within each State. Such Federal activities are, of course, carried out in conjunction with the inspector's duties as a State official. There are approximately 400 State seed officials authorized to draw samples, secure information and records, and otherwise inspect seed subject to the Federal Seed Act. This authority is formalized by the issuance of the U. S. Department of Agriculture authorization card, form AMS-200. I imagine that most of you have one of these authorization cards. These cards used to be renewable annually but under the present procedure the card is issued and remains in force until the person is no longer engaged in seed inspection work. When you leave the department you are expected to "turn in" your card to your State leader. If there are those of you who have not received an authorization card, I suggest that you contact Mr. Fanberg. On the reverse side of the authorization card you will find information relating to the duties assigned and legal authority. Note that you are authorized to inspect records. This should not be interpreted to mean that State inspectors are authorized under the Federal Seed Act to inspect seedsmen's records for the purpose of enforcing their own seed laws. You already have that authority under your own seed law. The inspections referred to are inspections of records of an interstate shipper. Such inspections are made only when specifically requested by Federal officials. They occur infrequently and only under unusual circumstances where travel to an out-of-the-way location on an isolated investigation would be too costly for a Federal employee to justify.

There has always been good cooperation between the State of Minnesota and the U. S. Department of Agriculture in the enforcement of the interstate section of the Federal Seed Act. We depend upon you to draw official samples which are truly representative of the lot of seed offered for sale. When you sample seed review your Seed Inspector's Manual for the number of bags to sample in a lot and also the size of sample required for each kind of seed. The size of the sample and the number of bags to sample has been discussed with most of you on previous occasions. Serious violations have been "thrown out" of court because the proper number of bags had not been sampled or the total weight of the sample drawn was not large enough. Section 201.41 of the Federal Seed Act states that for lots of six bags or less, each bag shall be sampled. We recently had a case that was turned over to the General Counsel of the USDA for possible prosecution. There were 11 bags in the shipment of seed which were found to be mislabeled. The Minnesota inspector sampled only five bags -- at least the original sampling form listed five of the 11 bags sampled. A copy of this form was apparently left with the seedsman. The seed inspector's report which was turned in to my office listed 11 bags out of the 11 were sampled. It is very likely that this case will never go to court because the rules for sampling seed were not followed. You must remember that for lots of six bags or less, sample each and every bag. In this case, if six bags had been sampled, the sample would have been acceptable. A great deal of time and effort goes into the investigation of each complaint. In some instances, warning letters are prepared in the field offices without an inspection of records. In other instances, it is required that the field office make an inspection of records. This may entail a consi-

derable amount of travel as well as other expenses. It is a bit disheartening when a case is about ready for prosecution to have it "thrown out" because not enough bags were sampled or because the sample was too small. I mention this only because I think it is important that each and every one of you, when you draw samples, be careful that you have complied with the rules for sampling seed.

We are happy that the Minnesota Department of Agriculture requests their State inspectors to remove one label from each lot of seed sampled and enclose it with the sample. A replacement label has to be attached to the container after it has been completely filled out. The original label is excellent evidence in a court of law. It also helps to reduce errors in filing a sampling report. There is never any question as to what is on the label when you actually have a label as evidence.

Most, if not all of you, have filled out a seed inspector's report. The seed inspector's report is one of the most important documents in a case. It is important that all details are filled in so that we can decide whether the case needs further investigation or whether, perhaps, a warning letter should be sent without involving any additional time, effort, and expenses. We are still experiencing a bit of difficulty on items 39, 40, and 41 of the seed inspector's report, form GR-209, where it states "number of bags received, number on hand, and number sampled." We are referring to the number of bags received in the original shipment, the number on hand when you first sampled the lot, and the number of bags you sampled. We have received seed inspector's reports which list under item No. 40 "Number of bags on hand," the number of bags on hand when the inspector comes back the second time to get additional information to make out the Federal report. Originally there were 40 bags on hand and maybe he sampled 15 bags. The next time he comes back there are only four or five bags left. He will put five bags as the number on hand and 15 sampled. You know it is an impossibility to sample 15 bags and have only five on hand. So we urge you to carefully read the seed inspector's report and fill it out completely and correctly as of the date of sampling. There may be times when you are rushed, but you must remember that the seed inspector's report is the official document in a possible court case. If a job is worth doing, it is worth doing correctly.

I want to thank all of you for your fine cooperation in the past. We want to continue working together as a team for the best interest of the State of Minnesota as well as for the welfare of the entire country. Seed law enforcement should be as uniform as possible in all states.

ACTIVITIES OF THE MINNESOTA STATE SEED LABORATORY  
CLIFFORD CHRISTENSON, SUPERVISOR

The following indicate the source of seed samples, and the number received per month for the last two fiscal years.

SOURCE OF SAMPLES

SERVICE SAMPLES	<u>1968-1969</u>	<u>1969-1970</u>
Dealers	3968	3785
Farmers	6703	5620
County Agents	26	7
County Inspectors	1185	1073
State Highway	141	195
Miscellaneous	0	39

INSPECTION SAMPLES

District Inspectors	2978	2316
County Inspectors	3065	2436
Screenings & Feed Samples	31	15

DISTRIBUTION OF SAMPLES BY MONTH

<u>Month</u>	<u>Service Samples</u>		<u>District Inspection Samples</u>	
	<u>1968-1969</u>	<u>1969-1970</u>	<u>1968-1969</u>	<u>1969-1970</u>
July	89	66	2	5
August	166	170	15	18
September	321	208	12	51
October	366	264	26	69
November	268	300	43	38
December	654	572	15	37
January	1428	1836	42	15
February	2936	3116	209	33
March	3621	3078	929	753
April	1871	872	1203	892
May	211	176	406	319
June	92	61	76	86
	<u>12023</u>	<u>10719</u>	<u>2978</u>	<u>2316</u>



## WHY WEED CONTROL IN A MUNICIPALITY.

Elmer G. Moe  
Agronomy Services Inspector  
Minnesota Department of Agriculture

It would be a pity if the Beautification Program should content itself with the elimination of unsightly billboards, the screening of junkyards, or preservation of wilderness areas, precious as these are.

Most of us spend the greater part of our lives in our own communities. With luck we may have a few weeks a year in which to travel and to view some of the more distant wonders of nature. But despite the airplane and the auto our normal "territory" to use a word that the biologists have popularized, is still a relatively small circle with the home garage at the center of it. And it is precisely in this environment that any federal programs of beautification is least likely to reach. If we want more beauty for most of the people most of the time, we have to give it to ourselves. No vast amounts of money are involved. No new legislation is required.

The ways to beautify a community are well known and have long been employed. We can plant trees and shrubs, and work up a beautiful lawn. We can agitate against local eyesores. Garden clubs have been doing these things for years. Now the work has to be helped along by the average citizen.

If our home and lawn are clean and beautiful, and if in the close proximity there exists an eyesore, much of our work may have been done in vain. Communities may possess a variety of eyesores, but the one which we concern ourselves with today is that of noxious weeds. This is not only an eyesore which effects the aesthetic value of our homes, but can be and often is a hazard to life, health, food crops, and animals.

These areas are or can be dealt with effectively and safely. Basically there are two methods of controlling these plants which are detrimental, namely cultural and chemical. Cultural methods still do have a definite place even after decades of use. Chemical control is a newer method preferred by many folks because it is a easier method, and often times cheaper. Care must be used in selection of herbicides for use in municipalities, because as a rule areas to be treated are in proximity to ornamentals, and gardens.

Folks shopping for herbicides for home use will find a goodly number, several of which are of low volatility which is one important factor for consideration. It would be well if inquiries were made of thier local extention office, or county agricultural inspector before making the final choice.

Education and regulatory programs need to be closely knit. Education is used to create an interest in and a knowledge of good weed control practices. Regulatory steps are taken only where education fails. In most instances it is difficult to tell where education ends and regulatory begins.

In the municipality the key person to refer noxious weed problems to is the mayor, or his appointed assistant weed inspector. This person is required by law in our state to be the responsible regulatory worker in the community.

To understand the role of the regulatory worker we need to take a quick look at basic types of people one encounters in weed work. First, there are those who "can and will." These require only good information which can be provided through education. Secondly there are those who "would but can't." They are usually to achieve success because of lack of education, finances, managerial ability or equipment. Enforcement is usually not the answer for this group. They require assistance and if success is to be achieved, programs must be planned to provide this assistance. Many educational programs are available to them. Thirdly, there are those who "could but won't." These are the individuals for whom weed laws are designed. Fortunately they are a small portion of the population, but enforcement is necessary to cope with them. County agricultural Inspectors have a responsibility in dealing with these types when necessary.

Legal measures when necessary are provided for by the state weed law, or by a local ordinance. An increasing number of municipalities are adopting and enforcing ordinances mainly because of their simplicity, and adaptability in aiding and abetting the beauty of a municipality.

So what better reason is there for weed control in a municipality than the fact that this is where we spend the most of our lives, and our environment is only what we make it. It is a problem that can be dealt with thru coordination, cooperation, and communication.

We have had good relationship in these areas. Let us hope that we can always look forward to improving them for the benefit of all concerned.

UNIVERSITY OF MINNESOTA



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