THE AMENDED NEW YORK SEED LAW
AND SEED TESTING

M. T. MUNN

PUBLISHED BY THE STATION
UNDER AUTHORITY OF CORNELL UNIVERSITY
STATION STAFF

Roscoe W. Thatcher, D.Agr., LL.D., Director.

George W. Churchill, Agriculturist.
Reginald C. Collison, M.S.,
   Chief in Research (Agronomy).
James E. Mensching, M.S.,
   Associate in Research (Agronomy).
James D. Harlan, B.S.,
   Assistant in Research (Agronomy).
William P. Wheeler,
   Associate in Research
   (Animal Industry).
Robert S. Breed, Ph.D.,
   Chief in Research (Bacteriology).
Harold J. Conn, Ph.D.,
   Chief in Research (Soil Bacteriology).
George J.ucker, Ph.D.,
   Associate in Research (Bacteriology).
Archie H. Robertson, M.S.,
   Carl S. Pederson, M.S.,
   Assistants in Research (Bacteriology).
Rudolph J. Anderson, Ph.D.,
   Chief in Research (Biochemistry).
Ralph H. Shriner, Ph.D.,
   Associate in Research (Biochemistry).
Fred C. Stewart, M.S.,
   Chief in Research (Botany).
Mancel T. Munn, M.S.,
   Associate in Research (Botany).
Elizabeth F. Hopkins, A.B.,
   Assistant in Research (Botany).
Walter O. Glover, M.A.,
   W. Howard Rankin, Ph.D.,
   Edward E. Clayton, Ph.D. (Riverhead),
   Elmer V. Shear, Jr., M.S. (Poughkeepsie),
   Leon K. Jones, Ph.D.,
   Associates in Research
   (Plant Pathology).
Lucius L. Van Slyke, Ph.D.,
   Chief in Research (Chemistry).
Dwight C. Carpenter, Ph.D.,
   Arthur W. Clark, B.S.,
   Associates in Research (Chemistry).
Morgan P. Sweeney, A.M.,
   William F. Walsh, B.S.,
   Millard G. Moore, B.S.,
   Leon R. Streeter, M.S.,
   Raymond C. Bender, B.S.,
   R. Bruce Dayton, B.S.,
   Assistants in Research (Chemistry).
Arthur C. Dahlberg, M.S.,
   Chief in Research (Dairying).
Julius C. Marquardt, B.S.,
   J. Courtenay Hening, M.S.,
   Assistants in Research (Dairying).
Percival J. Parrott, M.A.,
   Chief in Research (Entomology).
Hugh Glasgow, Ph.D.,
   Fred Z. Hartzell, M.A. (Fredonia),
   Hugh C. Huckle, Ph.D. (Riverhead),
   Frederick G. Mundinger, M.S.
   (Poughkeepsie),
   Associates in Research (Entomology).
S. Willard Harman, B.S.,
   Foster L. Gambrell, M.S.,
   Derrill M. Daniel, B.S.,
   Assistants in Research (Entomology).
Ulysses P. Hedrick, Sc.D.,
   Vice-Director; Chief in Research
   (Horticulture).
Fred E. Gladwin, B.S. (Fredonia),
   Orkin M. Taylor,
   George H. Howe, B.S.,
   Richard Wellington, M.S.,
   Frank H. Hall, B.S.,
   Harold B. Tukey, M.S. (Hudson),
   Charles B. Sayre, M.S.,
   Associates in Research (Horticulture).
George L. Slate, B.S.,
   Alwin Berger, Ph.D.,
   Olav Einset, B.Agr.,
   Leslie R. Hawthorne, B.S.,
   Associates in Research (Horticulture).
James D. Luckett, M.S., Editor.
   Catherine S. Oaks, B.A., B.L.S.,
   Librarian.
James S. Lawson, Phm.B.,
   Museum Preparator.
Jessie A. Sperry, Director's Secretary.
Frank E. Newton,
   Willard F. Patchin,
   Lena G. Curtis,
   Maude L. Hogan,
   K. Loraine Horton,
   Marian Aleman,
   Clerks and Stenographers.
   Elizabeth Jones, Mailing Clerk.
THE AMENDED NEW YORK SEED LAW AND SEED TESTING\(^1\)

M. T. MUNN

THE NEW YORK SEED LAW

Farm seeds, the most variable, and, weight for weight, the most expensive material the farmer has to buy, have been purchased and sold in New York since July 1, 1920, with a complete tag or label attached to each sack, bag, or container showing the purity, germination, amount of weed seeds present, and the presence or absence of certain noxious weed seeds. This law, which was designed to protect the purchaser of seeds by giving him full information regarding the quality of the contemplated purchase, and, also, to protect the honest, legitimate dealer or seedsman against the practices of dishonest and irresponsible ones, has proved to be entirely satisfactory and effective. It has brought about a very marked improvement in the manner in which seeds are bought and sold in this State. It has caused seeds to be sold on a more intelligent and on a quality basis. Knowledge concerning any product should bring about improvement in its production.

The New York seed law is patterned after the so-called Uniform State Seed Law and is primarily a labeling law in contradistinction to a grading law when grades are required. At the 1925 session of the Legislature certain important changes were made in the present law, the new requirements becoming effective September 1, 1925. It seems desirable to discuss them at this time. A copy of the law may be had upon application to the Commissioner of Farms and Markets, Albany, N. Y.

THE MAIN FEATURE OF THE LAW

The law requires the labeling of all agricultural seeds which are sold, offered, or exposed for sale, within the State of New York, for seeding purposes within the State, either in bulk, packages, bags, or other containers of 10 pounds or more with the exception of special mixtures, such as lawn, golf, and pasture mixtures, when each and every package or container regardless of its size and weight must bear

\(^{1}\)This is a revision of Bulletin No. 476 of this Station and sets forth changes in the New York seed law which go into effect on September 1, 1925.
the required label information. The law, also, now requires the labeling of all vegetable seed packets or containers.

KINDS OF SEEDS TO BE LABELED

The term "agricultural seeds," as defined in the law, includes practically every kind of seed planted upon New York farms. "Vegetable seeds" as defined in the law include the seeds of all truck-farm and garden crops which are generally known and sold under the name of vegetable seeds.

SEED MIXTURES

All mixtures of not more than two kinds of agricultural seeds in lots of 10 pounds or more must be fully and completely labeled in the same manner as unmixed agricultural seeds, giving the name, percentage present, and germination of each of the two kinds.

"Special mixtures" of agricultural seeds, that is, mixtures which usually carry a number of different kinds of seeds, when in lots of any size or weight whatsoever must also be labeled, except that the law does not require a statement of the germination percentages in the case of the special mixtures. However, the percentage of inert matter must be given, and also, "the name of each kind of agricultural seed present" in excess of 5 per cent or more of the total mixture. However, if any kind of seed in a "special mixture" is named as being present and it is present in less than 5 per cent by weight of the total mixture, the percentage of such seed must be given.

In the case of both mixtures and special mixtures as defined above the law requires a statement to the effect that such seed is a "mixture."

THE LABEL

The law requires each lot of agricultural seed, that is, field or farm crop seed, to carry a statement, tag, or label giving the following information:

1. **The commonly accepted name of such seed.**—For example, red clover, Dwarf Essex rape, Canada bluegrass, and Kentucky bluegrass must be called such on the label since these are their commonly accepted names, and not simply clover, rape, or bluegrass. The kind of seed must, therefore, be fully indicated. Variety and sub-variety names are not required, but if named on the label, as the vendor may elect, they must be the true variety name, otherwise, the seed would
be misbranded or falsely labeled. As an illustration, if a label reads "Luce's Favorite Corn" the seed must be of that variety and not of another variety such as "Reid's Yellow Dent." Since the present law does not require that the variety name be given, it is distinctly up to the purchaser to get the variety he desires.

2. The approximate percentage, by weight, of purity.—A statement of purity shows the amount of crop seeds of the kind which the label indicates as compared with the amount of other crop seeds, weed seeds, and inert matter present and must be expressed in terms of percentage by weight. Purity, then, is one of the important factors which determines quality and consequently price.

3. The percentage of weed seeds.—The total amount of weed seeds, whether noxious, troublesome, or otherwise, expressed in terms of percentage, must be stated on the tag or label. The term "weed seeds" as defined in the law does not include the seeds of field crops which are listed in the law as "agricultural seeds." Seeds of crop plants of agricultural value, which occur incidentally or thru natural infestation by ripening at the same time and being harvested with the crop and which occur in any sample of a given kind of seed, are known to seed analysts and the seed trade as "other crop seeds," "foreign seeds," "seeds of extraneous crop plants," and "other crop seeds of agricultural value." The term "other crop seeds" seems to be preferred. A distinction should be clearly made, therefore, between these accidental commercial seeds and weed seeds in a sample. The seed law does not require that the percentage of "other crop seeds" or of accidental commercial seeds be stated. Nevertheless, it should be clearly understood that seed testing stations and laboratories in making purity analyses of a lot of seed, as a rule, separate and express in separate percentages the other crop seeds and the weed seeds. It is often of great importance that the percentages of other crop seeds be given in distinction from weed seeds, since, in many cases, they are of equal or greater value than the named agricultural seed in which they occur.

4. The name of each kind of the seeds of noxious weeds.—The name and approximate number per pound of each kind of noxious weed seed present must be stated on the label when it occurs, either singly or collectively, in excess of 1 seed in each 5 grams (about one-sixth of an ounce) of small seeds such as timothy, clover, and alfalfa; of 1 seed in each 25 grams (about six-sevenths of an ounce) of millet, rape, and seeds of like size; and of 1 seed in each 100 grams (about 3½ ounces)
of oats, wheat, vetch, and seeds of like size; and in "mixtures" and "special mixtures" when such named noxious weed seeds occur in excess of 1 seed in each 15 grams of such mixture.

The law now designates several kinds of weeds as noxious in this State, *viz.*, Canada Thistle, quack grass, all the species of wild mustard (*Brassica* *spp.*), dodder (*Cuscuta* *spp.*), crabgrass (*Digitaria* *spp.*), and dock (*Rumex* *spp.*).

The sale of seeds containing these noxious weed seeds is not prohibited, but it is required that the label or tag state if they are present and in what quantity, that is the number per pound of crop seed, in order that the purchaser may avoid buying seeds containing them.

5. **The percentage of germination, together with the month and year when the test was made.**—With respect to germination, the law requires that two very important facts be stated on the tag or label on all lots of seeds except "special mixtures." *First*, the percentage of germination or the percentage of seeds which are alive or viable and which will sprout or germinate within the normal number of days must be indicated. In this connection "hard seeds," that is impermeable seeds in all legume seeds, even tho they may be viable, cannot be classed as "germinated" and included in the percentage of germination but may and should be given separately, along with the percentage of germination on the label, by the vendor. This is highly essential in determining the quality and actual value of the seed for seeding purposes, since dead seed is worthless for planting and is deceptive in determining the amount of seed to use. Also, the presence of a large percentage of hard seeds is of considerable importance, as a good stand may not be obtained on account of their delayed germination.

*Second*, the date, that is the month and year, when the test was made must be given. This second item is essential since the vitality of seeds decreases with age, and the purchaser can readily determine from the tag or label when the germination test was made and whether sufficient time has elapsed to affect materially the viability of the seed under normal storage conditions.

6. **The full name and address of the vendor.**—The label must also give the full name and address of the person who sells, offers, or exposes for sale such seeds.
Figure 1 shows a suggested form of tag.

| Common name .................................................. |
|---------------------------------|----------------------|
| Purity ............................................................. per cent |
| Weed seeds ...................................................... per cent |
| Noxious weeds .................................................. |
| .............................................................. per pound |
| Germination ...................................................... per cent |
| Date of test: Month ......................... Year ................ |
| Name .............................................................. |
| Address .......................................................... |

**Fig. 1.—A Form of Tag Recommended for Labeling Unmixed Agricultural Seeds as per Section 137 of the Law.**

**Labeling Mixtures**

Mixtures of agricultural seeds which contain not more than two kinds of such seeds in excess of 5 per cent by weight of each, when in lots of 10 pounds or more, must carry a tag or label giving essentially the same information required for the unmixed or regular run of agricultural seeds, except that the tag must state that such seed is a mixture and must also give the approximate percentage by weight of each of the two kinds of crop seed present in excess of 5 per cent of the total mixture, together with the germination percentage of each kind. Also, the name and approximate number per pound of each kind of the above-defined noxious weed seeds present in excess of 1 in each 15 grams of the mixture must be named, and the name and address of the vendor must be given.

Figure 2 shows a suggested form of tag for labeling mixtures.

<table>
<thead>
<tr>
<th>Mixtures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Name ..........................................................</td>
</tr>
<tr>
<td>............................................................ % .................. %</td>
</tr>
<tr>
<td>Weed seeds ...................................................... per cent</td>
</tr>
<tr>
<td>Noxious weeds ..................................................</td>
</tr>
<tr>
<td>.............................................................. per pound</td>
</tr>
<tr>
<td>Germination ...................................................... % .................. %</td>
</tr>
<tr>
<td>Date of test; Month ......................... Year ................</td>
</tr>
<tr>
<td>Name ..............................................................</td>
</tr>
<tr>
<td>Address ..........................................................</td>
</tr>
</tbody>
</table>

**Fig. 2.—A Form of Tag Recommended for Labeling Mixtures of Two Kinds of Agricultural Seeds as per Section 138 of the Law.**
LABELING SPECIAL MIXTURES

Special mixtures of seeds, that is mixtures containing more than two kinds of agricultural seeds, such as golf, lawn, pasture, and meadow mixtures, when sold, offered, or exposed for sale as mixtures, in packages or other containers of any size or weight whatsoever, must carry for each lot a tag or label stating (1) that such seed is a mixture; (2) the name of each kind of "agricultural seed" present in the proportion of 5 per cent or more of the total mixture, but if any kind of agricultural seed so named as an ingredient is present in less quantity than 5 per cent by weight of the total mixture the percentage of such seed must be given; (3) the total percentage of weed seeds; (4) the percentage by weight of inert matter such as chaff, sticks, broken stems, sand, etc.; (5) the name and number per pound of each kind of noxious weed, as defined on page 6, present in excess of 1 seed in each 15 grams of the mixture; and (6) the full name and address of the vendor of such mixture.

Figure 3 shows a suggested form of tag for properly labeling a special mixture.

<table>
<thead>
<tr>
<th>Special Seed Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common name</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**O**

<table>
<thead>
<tr>
<th>Inert matter</th>
<th>per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed seeds</td>
<td>per cent</td>
</tr>
<tr>
<td>Noxious weed seeds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>per pound</td>
</tr>
</tbody>
</table>

Name

Address

**Fig. 3.—A Form of Tag Recommended for Labeling Special Mixtures of Agricultural Seeds as per Section 139 of the Law.**

LABELING VEGETABLE SEEDS

The label requirements for vegetable seeds are very short, explicit, and should be complied with very easily. Since they are so short, it seems best to quote from the law, giving the entire text dealing with vegetable seeds.
Section 140. Label requirements of vegetable seeds. Each separate container of vegetable seeds sold, offered, or exposed for sale within this state for seeding purposes shall be clearly and plainly labeled in the English language as follows:

1. The kind of seed, and the variety.
2. The year for which packeted or put up, using type not smaller than ten point.
3. The name and address of the person or firm who put up or packeted the seeds and labeled the same.

RADISH
French Breakfast
1925

THE BESTEVER SEED CO.,
SCOTTVILLE, N. Y.

In order that one may see at a glance what the label requirements for vegetable seeds are Figure 4 is given as an illustration of a seed packet representing a desirable form for such type of container and one which includes all the requirements. It should be noted that the year when packeted or put up must appear in type not smaller than 10 point, that is, not smaller than that used in the illustration.

Fig. 4.—A Suggested Form for a Vegetable Seed Packet.

Form and Position of Label

The law does not require that any particular form of statement, tag, or label be used, except that it must convey definite information as set forth therein, plainly written or printed in the English language, and that it is to be placed on the exterior of the container. If the container is a bag of seed, the label should appear on the outside of the bag; if it is a barrel, bin, box, or package, on the outside of the container. The intent of the law is to place the information given on the label concerning the quality of the seed in such a form and position that it is accessible to the purchaser so that he may determine at a glance, if he will, what the seed is and, therefore, buy on his own responsibility.

The tag or label used may be made at home or purchased. It may be a common shipping tag such as seedsmen use, upon which the required information (the seed law items) is written, printed, or rubber stamped on one side and the address of the seedsman and the
consignee placed on the reverse side. It may be a piece of cardboard or heavy paper, providing it is suitable for receiving and displaying the written or printed information plainly or a printed and gummed sticker; or, in case of a box or carton, the information may be stenciled or printed on the front side or on the outside of the cover. Current commercial customs of seedsmen have established a style or type of shipping tag which is being used on most of the farm seeds sold under the requirements of existing seed laws. Vegetable seeds are usually labeled in printed form on the packets.

The tags illustrated in Figs. 1, 2 and 3 are suggested as suitable forms to use for labeling the three distinct classes of agricultural seeds provided for in the seed law, namely: (1) The general run of unmixed agricultural seed, (2) mixtures of two kinds of seeds, and (3) special mixtures of agricultural seeds which contain more than two kinds. The information provided for on these tags is the minimum required by the seed law for the three classes of seeds in order that they may be legally placed on sale or sold. The vendor or seller may add such other information as he may choose to be responsible for.

A careful comparison of the tags will show that they differ. This is necessarily so since the label requirements for unmixed seed are quite different from those for mixtures or special mixtures. If the seller of seeds desires a general tag or label for universal use on all three classes of seeds sold and one which will comply substantially with all the label requirements of the seed law, the form shown in Fig. 5 may be suggested.

The advantage of the tag shown in Fig. 5 lies in the fact that this one style of tag can be used for all classes of farm seeds, thereby eliminating the necessity of preparing three different styles for the different classes. It must be borne in mind, however, that not all the label information contained or provided for on this tag is required for any one of the three particular classes of seeds designated in the text of the seed law. Nevertheless, in many cases where complete analyses of seeds are made, as they should and must be, it may be less trouble to supply all of the data secured as a result of the test, rather than to keep in mind what may be omitted in order to have that particular class of seed properly and legally labeled. The blank space provided below the common name is to be used for the names and percentages of seeds used in mixtures where such constitute 5 per cent or more by weight of the total mixture.
Fig. 5.—Front and Reverse Side of General Tag or Label Suitable for Use with All Classes of Agricultural Seeds Labeled under the Law.

Exemptions from the Seed Law

In order that there may be no misunderstanding as to the exemptions from the provisions of the seed law, the text of the law regarding exemptions is hereby quoted in italics and followed by explanatory notes.

Section 344.—Exemptions. Agricultural seeds or mixtures of same shall be exempt from the provisions of this article:

1. When exposed for sale or sold for food or feeding purposes only.—No labels are required under the seed law when seeds are sold, offered, or exposed for sale for food or feeding purposes; however, just so soon as such seeds are sold, offered, or exposed for sale for
seeding purposes on the land then the complete label must be attached.

2. When sold to be recleaned before being sold or exposed for sale for seeding purposes.—No labels are required when seeds are sold to elevator men, merchants, seed dealers, etc., to be recleaned before being sold, offered, or exposed for sale for seeding purposes. In such cases the dealer or other person who recleans the seed to put it into salable condition for planting purposes must have the lot tested and must completely label each parcel of 10 pounds or more before it is placed on sale or sold. In other words, any farmer can sell his seed stocks of his own growing to any merchant to be recleaned without the necessity of labels; however, as soon as he takes it from his farm or sends it by common carrier to another for seeding purposes, then he becomes a vendor, and both the seller and the seeds are subject to all the provisions of the seed law.

3. When held for the purpose of recleaning.—When seeds are held in storage in any form or place for the express purpose of recleaning no labels are required until the seed is recleaned, held for sale, offered for sale, or sold for seeding purposes, then such goods must have the required label information.

4. When such seeds consist of buckwheat, barley, corn, oats, rye, wheat, or other cereal sold by the grower thereof on his own premises and delivered to the vendee or his agent or representative personally on such premises.—The meaning and intent of this exemption is quite clear, making it possible for one farmer to sell his seed barley, buckwheat, corn, oats, rye, wheat, and other cereals (that is, those grasses which are grown for their grain, which is ground into flour) of his own growing, on his own premises, to a neighboring farmer or other person providing he personally delivers such seeds to the "vendee" (the buyer) on such premises, that is the premises of the grower. The farmer may be held responsible for any representations he may make regarding such seeds. It should be clearly understood that none of the grasses or clovers with smaller seeds and which are more apt to be fouled with weed seeds not easily detected can be sold in this manner for planting directly on the land.

Furthermore, no farmer, grower, or any other person can legally sell, offer, or expose for sale seeds for seeding purposes either of his own growing or farmer-bought for delivery from his farm or premises, either personally, by agent, or by common carrier, unless such lot of
seed is less than 10 pounds in weight (or of any size or weight for special mixtures), or is sold to be recleaned, or is fully and completely tagged with the required label information.

THE WORD “APPROXIMATE” DEFINED

In certain of the provisions of the law when a percentage statement is required the word “approximate” appears as a qualifying word before percentage composition and before germination. The use of this word is based upon the fact that purity analyses or germination tests of seeds when made even by the same person, upon samples taken under identical conditions and circumstances from the same lot of seed, the same part of a bag, and even from different portions of a well mixed bulk, will always vary to a certain extent. In other words, no analyst, however carefully the work may be done, is able, except by chance, to get the same results each time a determination is made. Certain variations are expected in the seed because of its very nature, being a biological product, and allowances must be made for these variations. The allowances, or tolerances, which may be permitted under the meaning of the word approximate when purity analyses made in the State’s seed testing laboratory are compared with the analysis statements on the tag, are considered under a definite expression or formula termed the “latitude of variation” or “tolerance.” This expression, which defines provisionally the use of the word approximate, is a formula adopted by the Association of Official Seed Analysts of North America and is recommended for general use. Germination tests are also given a definite latitude of variation.

Every purchaser of seeds should bear these facts in mind when comparing a report of a test with the analysis statements on the tag or label of any lot of seed on the market.

FARMERS NOT EXEMPTED FROM THE SEED LAW

Farmers are not exempt from the seed law, except as provided for in subdivision 4 of the exemptions discussed on page 11. The farmer should not be and is not fully exempted from the provisions of the seed law when he offers for sale seeds which are intended to be used immediately for seeding or planting purposes without further cleaning. His seed stocks offered for sale for planting purposes,
except as above exempted, are subject to inspection and retest the same as those of any vendor of seeds, and his premises are also subject to inspection by authorized persons when there is reason to believe that the provisions of the seed law are being violated. He has not asked to be exempted and does not care to be since he has need of a strict seed law every time he purchases seeds for planting, whether of a dealer or of a neighbor. Seed laws which fully exempt the farmer have been found unconstitutional in other states. The careful, thrifty farmer demands, and rightly so, all the information about his contemplated seed purchase that is required to be given by the seed law and he should willingly give the same in return. If a farmer, who is the grower thereof, desires to sell certain kinds of seeds to a neighbor without any label or quality information, and both care to deal in that manner, then they alone are responsible, the one for obtaining full price value for his goods and the other for the noxious and troublesome weeds he may get along with seed of possibly low or unknown germination.

SEED INSPECTION AND LAW ENFORCEMENT

The seed law, being an article of the State agricultural law, provides for the unobstructed inspection of any lot of seed in any place or upon any premises, the authorized representatives or agents of the Commissioner of Farms and Markets having access at all reasonable hours to such premises. Samples of seeds, properly drawn according to the rules for sampling seeds, may be taken in duplicate for the express purpose of examination, analysis, or test. Such tests are reported to the Commissioner of Farms and Markets, Albany, N. Y., who is empowered to administer the law in case he has reason to believe that its provisions have been violated.

RESULTS OF TESTS MAY BE PUBLISHED

The law provides for the publication from time to time of the results of the analyses or tests of samples of seeds procured on the market. This is done in order that the purchaser may study and compare the seed dealers' promises and performances from year to year. Additional information regarding the general condition of the quality of seeds and the seed trade may also be published with these reports if deemed necessary.
HOW A FARMER MAY SELL SEEDS

A farmer who is a grower of seeds and desires to sell them for seeding purposes, without going to the trouble of having the goods tested and preparing labels for each bag or container, may do so in the following ways:

1. He may sell any seeds to anyone, anywhere, for use for food without labels, or for seeding purposes when in less than 10-pound lots (special mixtures excepted).
2. He may sell, ship, or deliver field seeds to any merchant or general market to be recleaned or graded before being offered for sale for seeding, just as he has always done.
3. He may sell buckwheat, barley, corn, oats, rye, and wheat seed or other cereal of his own growing to any person, providing the seed is delivered personally to the buyer or his representative upon the premises of the grower.

On the other hand, he may sell any kind of seed for seeding purposes to anyone, anywhere, either to be delivered personally or shipped thru a common carrier, providing he has either tested such seed, or has had a test made, as he should do, and has fully labeled each lot.

HOW A FARMER MAY BUY SEED

The law does not forbid any person from buying the cheapest and foulest seed upon the market or dead and trashy seed, if he cares to do so, nor does it shield him from his folly if he now buys seeds carelessly and without taking full advantage of the protection afforded by the seed law. Every lot of seed upon the market in this State must be fully labeled, and no farmer should accept such seed until he has made an examination of the statements on the tag or label. In case these statements are not given he should insist upon receiving such quality information as required by law and should promptly report to the Commissioner of Farms and Markets, Albany, N. Y., any persons or dealers who are violating the seed law or ignoring its provisions.

The most important consideration which the farmer can possibly give to seed purchases is in the matter of the grade of seed. When a tag or label bears a statement that the seed is above 99 per cent pure, and since the farmer can find out, if he will, whether such a statement is true, he may be sure that he is buying fairly safely. However, when he buys seed which is labeled with a low percentage
of purity, he may be certain that he is either buying dirt at seed prices, or else is getting a grand array of weed seeds which will most certainly bring him a huge expense bill in the form of eradication effort for years to come. Usually a low purity guaranty means cheap, but really costly, seed; and cheap seed, like cheap fertilizer, is always expensive. This is necessarily so since the competition on the seed market is so keen that seed grades are based very nearly on their actual value. There are no bargains in the seed market because cheap seed is cheap for the reason that it is poor in quality, and any farmer who buys cheap seed in order to save money is like the man who stops the hands of the clock to save time—there is no saving. Likewise, any farmer or grower who produces foul and dirty seed cannot expect a dealer to pay a high market price if he is forced to spend time and money in cleaning out dirt and inert matter, weed seeds, and the light trashy stuff that nearly always remains in seed when threshed.

Finally, the farmer should buy good seed of a desired and known kind or variety, fully and completely labeled. He should grasp the idea that purchased weed seeds and inert matter are highly expensive; furthermore, that buying "cheap seeds" carelessly, absolutely prevents one from having any control of the weeds upon the farm. It will pay every New York farmer to buy his farm seeds from seedsmen and dealers within the State, since they must sell their grades of seed under an honest and correct label as required by the State law. On the other hand, if a farmer sends outside the State for his seed he buys at his own risk because the out-state dealer sends seeds into this State under the freedom of interstate commerce and is immune to local prosecution except where contract of sale is made within the State. State laws do not regulate interstate commerce, consequently, the only protection for the farmer who sends for seeds outside the State is the reliability of the house with which he deals.

Purchasers may have seeds tested

Anyone who purchases seeds for his own planting purposes may have them tested free of charge according to the rules and regulations for seed testing adopted by the Station officials. However, no person should send samples for testing until he is familiar with the rules for the sending of such samples. Since the seed law is primarily a labeling law it should be entirely possible for the purchaser to rely quite largely upon the label statements found upon the lots of seed in the hands of the local dealer or other persons favorably known to the purchaser.
Plainly it should not be the function of the Station seed testing laboratory to be continually retesting labeled lots of seeds found upon the market when there is no evidence to show that such label statements are incorrect, or where the date of the germination test does not show sufficient time to have elapsed to effect materially the germinating ability of the seeds.

If, in any case, the purchaser of seeds has good and sufficient reason to believe that the label markings are not true statements of facts concerning the seed, or that sufficient time, as shown by the date of the test, has elapsed to effect materially the viability of the seed, or where the essential facts as to place of origin, special weed seeds, etc., desired by the prospective purchaser or planter are not given, he may have them tested free of charge by sending a representative sample, together with all information, to the Station.

Samples sent in for testing will be reported upon strictly in the order in which they are received. The report will include a statement of the purity of the sample, that is, it will give the percentage of pure seed, the percentage of weed seeds, the percentage and character of the inert matter, and the number per pound of crop seed of noxious weed seeds present. To avoid delay samples should be sent early in the season.

The percentage of germination, or the number of seeds per 100 selected just as they come which will sprout in the normal number of days, will be stated on the report if a germination test is requested. The percentage of hard seeds, that is, those seeds which remain hard (having neither sprouted, swollen, nor decayed) at the end of the test period will also be given.

When it seems to the interest of the farmer or purchaser to do so, some additional remarks or comments as to the condition or quality of the seed will be made upon the report.

**DUTIES OF THE SEED WHOLESALER, RETAILER, AND DEALER**

Under the seed law every retailer, dealer, implement dealer, seedsman, florist, gardener, hardware man, or grocer who sells seed is absolutely required to see to it that every lot of agricultural seed, either unmixed or when two kinds are mixed, of 10 pounds or more, and every package or container of special mixture of whatever size, and every packet or container of vegetable seeds, sold, offered, or exposed for sale in his place of business shall be cor-
rectly labeled or tagged. Therefore, the retail seedsman or dealer should insist that the wholesaler from whom he buys label his goods under the New York law, since if he is a New York wholesaler he can be held responsible for his unopened original bag of seed in the retail store. The local retailer or dealer should provide himself with blank or form labels, tags, or gummed stickers, upon which he can either print, stencil, rubber-stamp, typewrite, or write out the information required by the seed law in case his sales are not the unopened and original bags of seed bearing the wholesalers' label made out completely as to the New York seed law requirements. Forms of such tags are given on page 7. In either case, the retailer must place the moral responsibility upon the wholesaler or upon himself as the case may be. The retailer alone is responsible for unlabeled farmer-bought, or for unlabeled and untested seeds from outside the State. He must have such seeds tested and correctly label them before offering or exposing for sale, or selling them for seeding purposes. Conditions and rules under which such seeds are tested are given on page 20. The local merchant or vendor, in any case, is personally responsible for the absence of the legal tag on any sale of seeds.

SEED TESTING

OBJECT OF SEED TESTING

The object in testing any particular lot of seed is to determine, as nearly as possible, before the seed is planted, its productivity or the nature and vigor of the crop which may result from its use. The seed itself is considered one of the very important factors in crop production. At least two qualities (purity and germination) or more, which influence the value of a crop, may be definitely determined by testing. Therefore, it cannot be too strongly urged that farmers, both in their own interests, and in the interests of national food production, send samples of all seeds of unknown or doubtful quality to be tested some time before they sow them.

METHOD OF SEED TESTING

The Commissioner of Farms and Markets, who is empowered to make such rules and regulations as are necessary to secure the efficient enforcement of the seed law, has provided that for all seed testing done under the seed law the "Rules for Seed Testing" recommended
and followed by the Association of Official Seed Analysts of North America shall be used. This rule having been established, the rules for seed testing in vogue by the above named association will be used by the seed testing laboratory at this Station. In order to prevent excessive variation due to different methods of testing, it is recommended that seedsmen and others doing their own testing employ the rules and methods adopted by the State seed testing laboratory. Copies of the “Rules for Seed Testing” or information regarding the making of such analyses or tests may be obtained from the seed testing laboratory.

PROVISIONS FOR SEED TESTS

The seed law grants permission to the New York State Agricultural Experiment Station at Geneva to establish and maintain a seed testing laboratory with necessary equipment, and to employ competent analysts to make analyses, examinations, and tests of samples of seeds collected under the provisions of the seed law. Since 1905, this Station has made tests of seeds voluntarily and free of charge for farmers or purchasers of seed when the sample and the accompanying request for a test bore every evidence of being desired by or of value to the prospective sower of the seed. Samples in increasing numbers and to the extent of several hundred per year have been tested under this policy. It is to be expected that farmers in increasing numbers will appreciate and will continue to take advantage of the facilities and protection offered by the seed law in a provision for a seed testing laboratory where seeds may be tested.

Provision is also made in the law whereby any citizen of the State shall have the privilege of submitting to the seed laboratory at the New York State Agricultural Experiment Station at Geneva samples of agricultural seeds for test or analysis. This privilege is subject, however, to such rules and regulations as may be adopted by the Director and Board of Control of said Station. These officials are granted power to make such rules and regulations as may from time to time become necessary to facilitate service for the greatest number of people by limiting the number of samples tested for any one individual in a given time, and also to fix the fee charged for making tests of samples other than those tested free of charge.

Rules and regulations adopted by the Director and Board of Control of the Station for the use of the seed testing laboratory are given
below. Unless these rules and regulations are strictly observed delay in testing will result, or the samples may receive no attention at all. No tests will be made for persons violating any of the regulations.

RULES AND REGULATIONS GOVERNING THE TESTING OF SEEDS FOR PURITY AND GERMINATION

1. The kinds of seeds that will be tested are those specified in the Seed Law and, in addition, the seeds of garden and any other crop plants.

2. Samples to be tested should be drawn in such a way as to be thoroughly representative of the bulk lot of seed from which they are taken. A sample carelessly drawn will often give an unreliable and misleading analysis. Such an analysis has little or no value for guarantee purposes under the law. Every purity analysis and germination test can be of no greater value or more reliable than the sample which it represents. A handful of seed hastily taken from the top of a bin or bag of seed in any lot may indicate but little of the character or quality of the remainder. Also, an ear of corn or kernels from one or a few ears have but little, if any, value as a test of the entire bulk. Take every sample from all parts of the well-mixed bulk, or from all parts of every bag.

3. Only samples which are of sufficient size to permit the making of a representative test will be analyzed or tested. The minimum weight of seed forwarded for test should be approximately:

(a) One ounce (a good handful) of grass seed of any kind or of white and alsike clover;

(b) Two ounces (a double handful) of red and crimson clover, alfalfa, millet, flax, or seed of like size;

(c) One pound or more of cereals or seed of like size.

4. Each sample must bear an identification mark, the name of the kind of seed, and the name and address of the sender. Also, it must be accompanied by a statement of what is desired—whether a purity analysis, a germination test, or both, or other special information or examination.

Samples sent by mail or express must be fully prepaid and should be enclosed in stout containers which will insure their arrival unbroken.
Address all samples and correspondence relating thereto to the Seed Testing Laboratory, New York State Agricultural Experiment Station, Geneva, New York.

5. The name of the Station, of the Seed Laboratory, or of a Station official must not be used for advertising purposes in connection with the report issued upon any sample of seed. This policy is necessary since the Station can go no farther than to furnish information concerning the sample submitted, and has no control over its selection to insure its being thoroughly representative of the bulk from which it is taken. The data on the report issued, which is presumably accurate for the sample submitted for analysis or test, may be copied onto a tag or label for the purpose of a declaration for sale to comply with the seed law requirements, but the party doing this thereby guarantees that the quality of the seed to which such label is attached approximately equals that indicated by the label and must therefore stand responsible.

6. Samples of seed grown by residents of New York State for their own use will be tested free of charge. Such samples must be accompanied by a statement that the test is not desired for use in a declaration of sale or for purposes of labeling, but for guidance in planting.

7. For all tests the results of which are to be used for declarations of sale or for labeling purposes, a fee must be charged. The amount of such fee will depend entirely upon the kind of seed analysed or tested and its character. In every case the fee charged will be just sufficient to cover the actual cost of working the sample. Persons or firms sending samples for analysis or test under the fee provision should first secure estimate of probable cost or else give advance guarantee of the payment of the required fee or charges.

8. Only under special circumstances which seem to justify such analyses in order to check guarantees, will the Station make tests (other than the regular official tests) of labeled seeds offered for sale upon the market. Persons making request for such tests should state fully their reasons therefor and furnish the following information in addition to that required under paragraph 4:

(a) Name and address of the party offering the seed for sale;
(b) A complete copy of the label on the seed;
(c) The commonly accepted name of the seed, its variety, and place where grown, if known.
9. No more than five samples will be tested free for any one person in any calendar month, but such persons may have additional samples tested upon payment of the required fees. To avoid errors and consequent delays in testing, senders of samples should keep a record of their sendings.

10. During the rush season no notice may be taken of samples which are unaccompanied either by a fee or the statement required for free-test samples as given in paragraph 4.