Retailers Guide for Proper Handling and Storage of Lawn Seed Products
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1. **INTRODUCTION**

The motto of the American Seed Trade Association (ASTA), "First-the Seed®", expresses the basic premise that underlies the seed industry: There is no substitute for quality seed. The same holds true for lawn seed. Lawn seeds contain living plants that must be protected against harsh storage conditions that will reduce germination and lower the value of seed to the consumer. Even though the farmer and manufacturer may provide the highest quality lawn seed products available, poor handling and storage of grass seed by the retailer can, in fact, kill the seed and result in legal action by state control officials against the store.

This guide was developed by the Lawn Seed Division of the ASTA, in cooperation with the Association of American Seed Control Officials (AASCO), to provide important information to retailers on the proper handling and storage of grass seed products. Lawn seed is a product that is highly regulated by state agencies. This guide is designed to help the retailer sell these products and increase customer satisfaction while working with state agencies to meet legal requirements.

**Disclaimer and Limitation of Liability**

This guide is intended solely as an educational tool and as general guidance. It is not intended as, and should not be construed as, legal advice or a substitute for a seed company's own individual understanding of applicable legal requirements. Regulatory requirements may be issued or revised by government agencies after the publication date of this guide. Companies are advised to consult with their legal counsel and/or contact the appropriate regulatory agency(ies) to ensure compliance with applicable requirements.

This guide does not define or create legal rights or obligations, and ASTA specifically disclaims any such rights or obligations. ASTA and its members do not make any warranties or representations, either express or implied, with respect to the accuracy or completeness of the information contained in this guide; nor do they assume any liability of any kind whatsoever resulting from the use of or reliance upon any information, procedures, conclusions, or opinions contained in this guide.

2. **REGULATORY REQUIREMENTS**

Federal and state seed laws require that lawn seed be properly labeled and meet the guarantees on the label. Initially, these requirements are the responsibility of the seed packager or labeler as the product enters commerce. However, once in the store or warehouse, the responsibility for the seed generally shifts to the retailer.

State seed control agencies may enter retail businesses to inspect grass seed labels and pull samples to check for problem weed seeds, purity and % germination. If the label does not comply with the state or federal seed laws, the seed inspector will issue a “stop-sale order” that prohibits the sale of the problem seed product. The seed cannot be sold or shipped by the retailer until the label has been corrected and the stop-sale order has been lifted by the state agency.

The seed inspector may also study the seed label to determine when the seed was last tested to make certain that the seed has not exceeded the maximum period of time allowed by state and federal laws between germination tests. If the test date found on the label is older than the law permits, the test date has “expired” and seed lot will be placed under a “stop-sale order” until the seed is re-tested and relabeled. An “expired test date” does not mean that the seed is dead or that it will not germinate or grow. An “expired test date” only means that the germination must be re-tested by the seed packager and be relabeled to show the current germination and new test date. Procedures for handling “stop-sale orders” are covered in more detail in the last section of this guide entitled, “Working with State Seed Control Agencies.”
In order to prevent stop-sales, the retailer needs to know when the seed was last tested and make certain that it is sold before the test date “expires”. Therefore, a general understanding of the seed label is important in order to locate that information.

2.1 Label
The retailer should be aware of the basic parts of the label and where to find them on the package. Each part will be important later when we discuss retesting and relabeling of expired seed inventories. The basic parts of a grass seed label are:

- Kind and variety of seed
- % Purity
- % Other Crop Seeds, % Weed Seeds, % Inert Matter
- % Germination
- Origin of the seed
- Lot number
- Test dates
- Sell-by dates (where required)
- Seed company name and address

Items f, g, and h are the parts of the label that are the most important items for the retailer to be able to locate. It is important to note that the above list does not contain all of the state and federal label requirements. For the sake of simplicity, only those parts that a retailer should be able to identify and locate on a label are listed. The basic parts of a grass seed label can be found on the seed analysis panels in examples 1, 2 and 3 in the Appendix of this guide.

2.2 Lot Number, Test Date and “Sell-by” Dates
Of all the required parts found on a grass seed label, the most important for the retailer to recognize are the lot number, the test date and the sell-by date:

2.2.1. Lot Number
Every container of seed is identified by a unique code that is assigned to a specific amount of seed (lot) that is mixed and shipped by the seed company. This code or lot number helps seed control officials trace the seed in the package back to the fields where they were grown.

2.2.2. Test Date
Each lot of seed is tested for purity, inert matter, weed seeds, other crop seeds, noxious weed seeds and germination. The test date on the label identifies the month and year that the germination test was completed (e.g. Jan. 2015).

2.2.3. Sell-by Dates
Many states require a sell-by date on grass seed labels. The sell-by date, if present, identifies the last date that the seed may legally be sold at retail in that state and tells the retailer when the seed must be retested and re-labeled or re-stickered. When products use sell-by label statements, the new label or sticker applied to the seed should also reflect new sell-by dates.

2.3 Label Location
The basic parts of the grass seed label are found grouped in a section of the label known as the “seed analysis panel.” The analysis panel is normally found on the side or back of the package and may be printed directly on the package or pre-printed on an adhesive-backed label and applied to the container. On large bags, the analysis panel may also be found on an “ear tag” attached to the container. Examples 1, 2, and 3 demonstrate a few of the types of analysis panels used by grass seed companies. Each basic label part is identified by the above corresponding letter for each example.

2.4 Over-stickering/Over-labeling Expired Seed
IMPORTANT: Each state allows seed to be sold for a fixed number of months following the initial test date. After this period, the seed must be retested to be sure that the germination meets the label guarantee. When this occurs, a small stick-on label or “over-sticker” that identifies each specific lot
and the new germination test date is issued by the seed packager to be placed over the lot number, test date and, if present, sell-by dates in the analysis panel. In most states, the retailer is responsible for ensuring that the seed is properly relabeled.

Follow the steps listed below to make the over-labeling process easier:
(a) Once you determine that you have expired seed stock, remove the seed from the sales floor and post a sign where the seed is being held that reads “Not for Sale”.
(b) Contact the seed company so that the seed can be retested and the germination rates determined.
(c) If the seed continues to meet labeled guarantees, the seed company may supply the retailer with a small “over-sticker” with the original lot number, new test date and new SELL BY dates (if present). Refer to examples 4 and 5 in the Appendix to see how these over-stickers should be applied to the original analysis panel. Note: Many states are now requiring that the new stickers contain both the lot number and the test date. The use of over-stickers that contain only a new test date may no longer be acceptable in your state. Check with your seed supplier before applying any over-sticker that does not contain a lot number.
(d) The seed company may also choose to supply the retailer with a completely new stick-on seed analysis panel or “over-label”. Completely cover the old seed analysis panel with the new “over-label”. See Example 6 in the Appendix of this guide.
(e) Insure that the lot number of the new “over-sticker” or “over-label” to be applied is identical to the lot number on the original label.
(f) Carefully apply the new test date/lot number sticker over the original test date and lot number on the analysis panel. Do not cover over any other labeling information with the new over-sticker.
(g) Do not use extra over-stickers or over-labels from one lot of seed to re-label other seed lots. This is a serious violation of FEDERAL and STATE law.
(h) Some states now require that the seed be over-labeled with a completely new seed analysis panel if the product has already been over-stickered once. If you’re unsure of your state requirements, check with your seed supplier. Examples 4, 5, and 6 demonstrate where over-stickers and over-labels should be applied.

3. LAWN SEED STORAGE AND HANDLING

It is the responsibility of the Retailer/Distributor to store and handle lawn seed in the warehouse and on the sales floor in a manner that will maintain labeled germination rates. Improper storage and handling can kill the seed and cause the state to take legal action against the retailer. Always remember that a seed contains a living plant that must be protected for long periods of time. Improper storage of seed can result in a poor product that cannot be relabeled or sold and must be destroyed.

3.1 Seed Storage Conditions

3.1.1 Environmental Conditions
Seed should be stored under low temperature and low humidity. High temperatures combined with high relative humidity can kill lawn seed!
(a) Store seed away from direct sunlight.
(b) Store seed inside and out of the rain.
(c) Whenever possible, store seed inside where air-conditioning reduces both temperature and humidity.
(d) Avoid storing seed outside during the summer where high temperatures and high humidity may kill the seed.

3.1.2 Pest Control
Avoid situations where pests such as rodents and birds can damage the seed and package.

3.1.3 Pesticides
Avoid storing seed near pesticides to prevent possible contamination.
3.2 Inventory Management
Proper handling of seed product inventories will reduce the chance that the seed will expire. Failure to sell the oldest seed stocks will result in stop-sale notices when found by state seed inspectors.

3.2.1 Determine the test dates of all seed inventories at the beginning of the season, once a month and every time new stock is received.
3.2.2 Use the FIRST IN-FIRST OUT PRINCIPLE of inventory control. Sell all older seed before adding new seed to the display area.
3.2.3. Remove expired products from display area and place a sign marked “Not for Sale” near the expired seed. If expired seed is removed from sale, there is no violation of state seed laws.
3.2.4. When you become aware that you have expired stock, contact your seed supplier for new testing and new stickers. Follow the procedures outlined Section 2.4 Over-stickering / Over-labeling expired Seed.

3.3 Handling Seed in Bulk or Bin Containers
Federal and state seed laws apply to bulk and bin containers. All seed containers must be properly labeled and care must be taken to prevent cross-contamination from other seed products and containers.

The following recommendations are provided to retailers that practice bulk seed sales:
3.3.1. Make sure bin/bulk containers are clean before dumping seed into the bin/bulk containers.
3.3.2. Make certain each bin/bulk container has a label attached that matches the seed lot from the original container.
3.3.3. Take precautions to avoid co-mingling of seed when dispensing or dumping seed.
3.3.4. When the bin/bulk container is emptied, clean the bin/bulk container and ensure that the labeling on the bin/bulk container is changed to reflect the labeling of the seed lot used to refill the bin/bulk container.
3.3.5. Avoid returning any unused seed left over at the end of the selling season into original container.
3.3.6. Ensure that the seed lots in bin/bulk containers have a current germination test date and sell by date where applicable.

4. WORKING WITH STATE SEED CONTROL AGENCIES
State seed control inspectors are granted the power by state law to:
(a) Enter the property.
(b) Inspect all seed inventories being held.
(c) Sample the seed to insure that the products meet the labeled guarantees.
(d) Stop-the-sale of any product that does not meet with the requirements of the state.

However, do not hesitate to contact the State seed control agency any time you have questions regarding the seed law and proper handling and storage of seed. State agencies are very willing to answer questions and help retailers comply with state laws before problems develop. You can find a list of all state seed control agencies and people to contact in your state at the AASCO website: http://www.seedcontrol.org/membership_directory.html.

4.1 Responding to Stop-Sale Notices
A “Stop-Sale Notice” is a legal document that requires your immediate attention. If the seed has expired or is improperly labeled, the seed inspector may issue a stop-sale notice. A stop-sale notice may be issued by the state at a later date if test results of the samples show that the quality does not meet the guarantees on the label. Some states have specific requirements for handling stop-sale notices, but in general here are the steps to follow:
4.1.1 Read and follow all the instructions contained in the order.
4.1.2. Remove the affected seed from the sales floor or shelf.
4.1.3. Place the seed in question in an area away from the public and display a sign that reads “Not for Sale” where the seed is being held.
4.1.4. Contact the seed company to determine if the seed can be relabeled with a new sticker or seed analysis panel.
4.1.5. If the seed meets germination guarantees, the seed company will supply either a new seed analysis panel or small over-sticker with the new test date and the original lot number.
4.1.6. Apply the new sticker or over-label as demonstrated in section 2.4. Over-stickering/Over-labeling Expired Seed.
4.1.7. Contact the agent that issued the Stop-Sale Order and ask that the product be inspected again and released. Do not attempt to sell the seed until the order has been lifted by the state.
4.1.8. If the seed cannot be relabeled, it may have to be returned to the seed packager or destroyed. Contact the agent that issued the stop-sale for permission to return or destroy the seed.
4.1.9. Maintain records of all inspections, stop-sale orders, releases, disposals, test dates and over-labels or stickers and all other actions taken to bring seed back into compliance with state requirements in a convenient location for all employees.

4.2 Employee Training
Make this document available to all employees that handle seed and make certain that they are familiar with its contents. Post an additional copy in a convenient location for all to read.

4.3 Key Training Points to Remember
4.3.1. State law limits the amount of time lawn seed can be sold before it has to be retested for germination and re-labeled.
4.3.2. To avoid state-issued stop sale notices, check the test dates of all seed inventories monthly to insure that seed has not “expired” or exceeded the maximum time allowed for sale.
4.3.3. Sell seed products using the ‘First-in, First-out’ principle.
4.3.4. Store seed under conditions of low temperature and low humidity. High temperatures and high humidity can kill lawn seed.
Cool Season Grass Seed Test Date Information  
*(as of November 2014)*

This chart provides a quick reference by state to calculate the number of months permitted from the “Test Date” for cool season grass seed to be sold, otherwise known as the “Sell-by Date”. If a state and/or corresponding “Sell-by Date” is not listed on the label, the chart can assist employees in calculating the “Sell-by Date” from the label’s “Test Date”. The number of months permitted are determined by the state seed laws and regulations.

In preparation of this document, every effort has been made to offer the most current, correct, and clearly expressed information possible. Nevertheless, inadvertent errors in information may occur. State Seed Laws are subject to change at any time. This document is not intended for use to determine legal compliance.

<table>
<thead>
<tr>
<th>State</th>
<th># Months Permitted by State Seed Laws</th>
<th>State</th>
<th># Months Permitted by State Seed Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
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<td>Mississippi</td>
<td>9</td>
</tr>
<tr>
<td>Alabama</td>
<td>9</td>
<td>North Carolina</td>
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<td>North Dakota</td>
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<td>Arizona</td>
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<td>Nebraska</td>
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</tr>
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<td>California</td>
<td>15</td>
<td>New Hampshire</td>
<td>15</td>
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<tr>
<td>Colorado</td>
<td>16 (inclusive)</td>
<td>New Jersey</td>
<td>15</td>
</tr>
<tr>
<td>Connecticut</td>
<td>15</td>
<td>New Mexico</td>
<td>9</td>
</tr>
<tr>
<td>Delaware</td>
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<td>Nevada</td>
<td>18</td>
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<td>Florida</td>
<td>7</td>
<td>New York</td>
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<td>9</td>
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<td>Oklahoma</td>
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<td>Oregon</td>
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<td>Pennsylvania</td>
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<td>Indiana</td>
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<td>Rhode Island</td>
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<td>Iowa</td>
<td>9</td>
<td>South Carolina</td>
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<td>Kansas</td>
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<td>South Dakota</td>
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<td>Kentucky</td>
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<td>Tennessee</td>
<td>9</td>
</tr>
<tr>
<td>Louisiana</td>
<td>9 (inclusive)</td>
<td>Texas</td>
<td>9</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>9</td>
<td>Utah</td>
<td>18</td>
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<td>Maryland</td>
<td>15</td>
<td>Virginia</td>
<td>15</td>
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<td>Maine</td>
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<td>Washington D.C.</td>
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<td></td>
</tr>
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<td>RUSSL</td>
<td>15</td>
<td></td>
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</tr>
<tr>
<td>Federal Seed Act</td>
<td>15</td>
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</tr>
</tbody>
</table>
Example 1: Seed Analysis Panel

a. Kind and variety of seed
b. % Purity
c. % Other Crop Seeds, % Weed Seeds, % Inert Matter
d. % Germination
e. Origin of the seed
f. Lot number
g. Test dates
h. SELL-BY dates (where required)
i. Seed company name and address

Brand X Lawn Seed Mixture

<table>
<thead>
<tr>
<th>Pure Seed</th>
<th>Kind/ Variety</th>
<th>Origin</th>
<th>Germination</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.00 %</td>
<td>ABC Perennial Ryegrass</td>
<td>Oregon</td>
<td>90 %</td>
</tr>
<tr>
<td>30.00 %</td>
<td>DEF Kentucky Bluegrass</td>
<td>Washington</td>
<td>80 %</td>
</tr>
<tr>
<td>27.00 %</td>
<td>GHI Red Fescue</td>
<td>Canada</td>
<td>75 %</td>
</tr>
</tbody>
</table>

Other ingredients
1.00 % Other crops seeds
1.50 % Inert matter
0.50 % Weed seeds

No noxious weed seeds

Lot No. 12345
Test date: Jan. 2015

SELL BY Oct. 31, 2015
In FL:
SELL BY Aug. 31, 2015
In MT, SD, WI:
SELL BY Jan. 31, 2016
In AZ, CA, MN, NH, NY, OH, PA, and DC:
SELL BY April 30, 2016

Ajax Seed Company
Net Wt.: 2.3 lb (1.0 kg)
123 Green St.
Anywhere, USA 98765
APPENDIX

Examples 2 & 3: Seed Analysis Panel

a. Kind and variety of seed
b. % Purity
c. % Other Crop Seeds, % Weed Seeds, % Inert Matter
d. % Germination
e. Origin of the seed
f. Lot number
g. Test dates
h. Sell-by dates (where required)
i. Seed company name and address

<table>
<thead>
<tr>
<th>BRAND X LAWN SEED MIXTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PURE SEED</strong></td>
</tr>
<tr>
<td>40.00 %</td>
</tr>
<tr>
<td>30.00 %</td>
</tr>
<tr>
<td>27.00 %</td>
</tr>
</tbody>
</table>

1.50 % INERT MATTER
1.00 % OTHER CROP SEEDS
0.50 % WEED SEEDS
NO NOXIOUS WEED SEEDS
NET WEIGHT: 25 POUNDS

Ajax Seed Company
123 Green St.
Anywhere, USA 98765

<table>
<thead>
<tr>
<th>BRAND X LAWN SEED MIXTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PURE SEED</strong></td>
</tr>
<tr>
<td>40.00 %</td>
</tr>
<tr>
<td>30.00 %</td>
</tr>
<tr>
<td>27.00 %</td>
</tr>
</tbody>
</table>

01.00% OTHER CROPS SEED
01.50% INERT MATTER
00.50% WEED SEED
NOXIOUS WEED SEEDS PER POUND: NONE FOUND

TEST DATE 1/14
LOT: 12345
NET WT: 20 LB

SELL BY Oct. 31, 2014
SELL BY Aug. 31, 2014 in FL
SELL BY Jan. 31, 2015 in CO, IL, MT, MI AND WY.
SELL BY April 30, 2015 in AK, CA, NY, OH, PA, UT, AND DC

AJAX SEED CO. 123 GREEN ST. ANYWHERE, USA 98765
APPENDIX

Examples 4 & 5: Over-Sticker Placement

Brand X Lawn Seed Mixture

<table>
<thead>
<tr>
<th>Pure Seed</th>
<th>Kind/ Variety</th>
<th>Origin</th>
<th>Germination</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.00 %</td>
<td>ABC perennial ryegrass</td>
<td>Oregon</td>
<td>90 %</td>
</tr>
<tr>
<td>30.00 %</td>
<td>DEF Kentucky bluegrass</td>
<td>Washington</td>
<td>80 %</td>
</tr>
<tr>
<td>27.00 %</td>
<td>GHI Red fescue</td>
<td>Canada</td>
<td>75 %</td>
</tr>
</tbody>
</table>

Other ingredients
- 1.00 % Other crops seeds
- 1.50 % Inert matter
- 0.50 % Weed seeds

No noxious weed seeds

Lot No. 12345
Test date: Jan. 2015
SELL BY Oct. 31, 2015
In FL:
SELL BY Aug. 31, 2015
In MT, SD, WI:
SELL BY Jan. 31, 2016
In AZ, CA, MN, NH, NY, OH, PA, and DC:
SELL BY April 30, 2016

Ajax Seed Company
123 Green St.
Anywhere, USA 98765

LOT NUMBER: 12345-ABC
TEST DATE: 1-15
In CA, MN, NH, OH, PA, and NY: SELL BY 4-16

BRAND X LAWN SEED MIXTURE

PURE SEED | VARIETY/ KIND | GERMINATION | ORIGIN
-----------|---------------|-------------|--------|
40.00 %    | ABC perennial ryegrass | 90 %        | Oregon |
30.00 %    | DEF Kentucky bluegrass | 80 %        | Washington |
27.00 %    | GHI Red fescue | 75 %        | Canada |

1.50 % INERT MATTER
1.00 % OTHER CROP SEEDS
0.50 % WEED SEEDS
NO NOXIOUS WEED SEEDS

NET WEIGHT: 25 POUND

Ajax Seed Company
123 Green St.
Anywhere, USA 98765
Example 6: Over-Sticker Placement

<table>
<thead>
<tr>
<th>BRAND X LAWN SEED MIXTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PURE SEED</strong></td>
</tr>
<tr>
<td>40.00%</td>
</tr>
<tr>
<td>30.00%</td>
</tr>
<tr>
<td>27.00%</td>
</tr>
<tr>
<td>01.00%</td>
</tr>
<tr>
<td>01.50%</td>
</tr>
<tr>
<td>00.50%</td>
</tr>
</tbody>
</table>

NOXIOUS WEED SEEDS PER POUND: NONE FOUND

TEST DATE 1/14    LOT: 12345    NET WT: 20 LB

SELL BY Oct. 31, 2015
SELL BY Aug. 31, 2015 in FL
SELL BY Jan. 31, 2016 in CO, IL, MT, MI AND WY.
SELL BY April 30, 2016 in AK, CA, NY, OH, PA, UT, AND DC

AJAX SEED CO.    123 GREEN ST.    ANYWHERE, USA 98765

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