

# NATIONAL CODE OF PRACTICE



**Australian Seed Federation**  
SOWING SEEDS



## FOR THE USE OF SEED TREATMENTS

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# CODE OF PRACTICE FOR THE USE OF SEED TREATMENTS

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## 1. THE ROLE OF SEED TREATMENT IN FEEDING THE WORLD

Seed borne and early season diseases and insect pests pose devastating consequences to crop production if not managed. Seed treatments have therefore been developed to promote good seedling establishment to minimise yield loss, to maintain and improve quality and to avoid the spread of harmful organisms.

Seed treatments is a term to describe the use and application of biological, physical and chemical agents and the application techniques used with seed that provide seed and plant protection to improve the establishment of healthy crops.

## 2. THE FIRST SEED TREATMENTS

Some of the first recorded uses of seed treatment are from Egyptian and Roman periods and involved a technique of using sap from onion. In the middle ages, STs were made with liquid manure and chlorine salts. Salt water treatments have been used since the mid-1600s and the first copper products were introduced in the mid-1700s. The "still used today" technology of hot water treatment is documented from as early as 1765 in Wittenberg, Germany.

## 3. TODAY'S MODERN SEED TREATMENTS

The objectives of modern seed treatment products are the superior control of certain insects and diseases while improving crop safety leading to good establishment of healthy and vigorous plants. Modern seed treatment formulations must also contribute to improvements in farmers' and workers' safety and stewardship of the environment.

Today's modern seed treatment products have to meet high safety and efficiency standards. The newest active substances and formulations provide long lasting, broad spectrum, systemic control of diseases and insect pests (depending on the specific active ingredient).

Modern seed treatment products are able to deliver high levels of efficacy for the control of early season insects or diseases at a much reduced usage rate compared to many foliar or soil applied alternatives.

## 4. HOW SEED TREATMENTS ARE APPLIED

Seed treatment is a term that describes both products and processes. The usage of specific products and specific application techniques can improve the growth environment for the seed, seedling, and young plant. Seed treatment complexity ranges from a basic dressing, to coatings and pelleting:

- 4.1 **Seed Dressing:** The most common method of seed treatment. The seed is dressed with either dry formulation or wet treated with a slurry or liquid formulation. Dressings are applied either by farmer user or contract professional applicator.
- 4.2 **Seed Coating:** A special binder is used with a formulation to enhance adherence to the seed. Coatings require advanced treatment technology and are applied exclusively by professional applicators.
- 4.3. **Seed Pelleting:** The most sophisticated seed treatment technology. This results in changing the physical shape of a seed to enhance plantability and handling. Pelleting requires specialised application machinery and techniques and is the most expensive of the applications and are exclusively applied by professional applicators.

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## **5. MEETING USER EXPECTATIONS**

Farmers, distributors and regulatory authorities have high expectations regarding the quality of a seed treatment and its application to the seed. The expectations are that seed treatment will provide high performance and safety in processes and products.

The Australian Seed Federation recognises that seed treatment supports "Added Seed Value" (e.g. safe emergence, seedling establishment, crop stands, yield and crop quality).

### **5.1 AIM**

This Code of Practice seeks to ensure that all treated seed for sowing sold under the ASF logo has been treated safely, accurately and efficiently in accordance with current regulatory and industry best practice methods.

### **5.2 SCOPE**

The Code applies to the process of seed treatment application to all sowing seed (not including seed treatment for control of seed storage pests).

The Code will reference relevant legislation at state and federal levels.

## **6. APPLICATION RATE**

All fungicide and insecticide seed treatments need to be registered by the National Registration Authority, which approves the label usage and rates of application.

The overriding objective of the Code is to ensure that professional applicators comply with the label rates of application.

The amount of product applied to the seed line must comply with the rate specified on the label. It is essential that the product be evenly distributed over all seeds.

## **7. LABEL DIRECTIONS**

The product label is designed to give advice and detailed information regarding the effective and safe use of the chemical in addition to the target pest or disease, registered crop and prescribed application rate. The label also has information on correct product storage, handling and precautions for safe use.

The onus is on the applicator to ensure the product is used according to the label specifications. That is, it should not be used for any purpose, or in any manner, contrary to the label unless authorised under appropriate legislation. An off-label permit issued by the NRA is an example.

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## 8. RECORD KEEPING

Who is responsible?	The applicator.
Why should records be kept?	To substantiate adherence to application rates and other requirements as per the label.
What type of records should be kept?	Record the actual Seed Treatment Rate per line of seed. (This = quantity of product per quantity of seed). A 100gram reference sample of treated seed per seed line must be kept for one sowing season. This should be labeled with the lot number and stored in an insect and rodent proof area.

## 9. ACCREDITATION

### 9.1 Responsibilities of the Applicator:

- To be qualified and ensure that only qualified and trained personnel will apply the ST product.
- To understand and ensure these personnel will understand and will follow the label instructions.
- To ensure the machinery and operator protection systems will be safely operable, reliable and can be calibrated with the ST product application rate.
- To ensure the plant staff will not eat, drink or smoke during the chemical preparation application and cleaning process.
- To ensure the registered rate and application technique is used.
- To ensure all treated seed is labeled "as per ASF Code of Practice for Seed Labelling and Marketing".
- To ensure the product is applied for its registered usage only.

### 9.2 Accreditation Criteria:

Accreditation will be granted to the applicator by the ASF upon demonstrated competency in the following areas:

- Calibration of equipment
  - Pumps
  - Grain flow
- Interpreting label information (including shelf life of product)
- Record Keeping
  - Seed samples
  - Calibration
  - Rate of application each product
  - Seed Treatment product(s) brand
- Knowledge of factors affecting seed loadings

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- Grain quality
- "Slurry" mix and quantity per tonne
- Primary versus secondary application distribution
- Knowledge of how the losses of applied chemical can occur
  - Variations in formulations
  - Over handling
  - Poor application methods
  - Poor storage of seed treatment
  - Poor quality water mix and contaminations

## 10. AUDIT PROCESS

Once accredited, applicators will be required to undergo an annual audit to:

- Ensure compliance with the label directions and rates (and shelf life of chemicals).
- Ensure compliance with the Code of Practice procedures.
- Ensure adequate record keeping.
- Identify corrective areas.
- Make recommendations.

### 10.1 Who conducts the audit?

- The Code of Practice may recognise official auditors and laboratories to assess for compliance with Code of Practice requirements.
- Accreditation is contingent upon a successful audit.
- The auditor at his/her discretion may from time to time request samples to be sent to a laboratory as directed in order to measure for compliance with the Code.

### 10.2 What constitutes a successful audit?

- Evidence of compliance with code record keeping requirements.
- Samples of each treated seed lot correctly identified and stored.
- Sample is compliant with labeling provisions.
- Laboratory analysis demonstrates reasonable seed coverage.

### 10.3 Who keeps the records of the audit?

- All records and individual audit reports will remain strictly confidential.
- All records of audits will be filed in an official register held by the ASF.
- An annual audit report will be tabled at the Annual Conference of the ASF.
- Individual audit reports will be made available to the accredited applicants and in case of third party relationships with that party.

## 11. COMPLIANCE AND NON-COMPLIANCE IMPLICATIONS

In the case of compliance/non-compliance as evidenced from an audit, the following procedures shall apply:

### 11.1 Compliance

- The auditor is to notify the applicator (and where applicable the third party) in writing of the successful audit.
- The auditor is to submit a critique of the audit to the applicator (and where applicable the third party) and the ASF.
- The ASF is to renew the applicators accreditation.

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## 11.2 Non-Compliance

The auditor is to notify the applicator (and where applicable the third party) in writing of all areas of non-compliance.

- The auditor may recommend suspension of accreditation to the ASF.
- The auditor is to detail areas of non-compliance, recommend corrective action and specify a time frame for corrective action.
- A re-audit is to occur within a specified time frame to ensure that the corrective action has been implemented.
- The auditor is to make a final recommendation regarding re-affirmation or removal of accreditation.
- The applicator (and where appropriate the third party) will be advised on the reaffirmation or removal of accreditation.
- An applicator may dispute the auditor's results and recommendations and at his/her own cost may request the ASF to appoint a second auditor. The recommendations of the second auditor will be final.
- Where possible the auditor will seek to have non-conformances remedied whilst onsite.
- Suspension of accreditation will be used as a last resort.

For more information on the ASF's Code of Practice for the Use of Seed Treatments, please contact the ASF on 02 6282 6822 or [enquiry@asf.asn.au](mailto:enquiry@asf.asn.au)

*Ends*

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