



## USERS GUIDE and INSTRUCTIONS

When disasters cause damage to animals, crops, farm structures/facilities, stored materials, and machinery/equipment, it is important to be able to accurately assess the scale of the damage and determine the economic loss caused by the disaster. Most common agricultural disasters are weather related; such as flooding, drought, wildfire, hail, freezing, and wind. Diseases can cause significant damage and economic loss to animals and plants. Damage can also occur as the result of accidental or intentional human actions; such as misapplied pesticides, contaminated feed or water, or the intentional introduction of a bioagent that results in economic losses for agricultural producers/growers.

### What is the *Ag Damage Assessment Form*?

Following a disaster event, local assessment teams inspect and review the extent of damage and determine the economic loss from the disaster. Information gathered by local teams can be shared through the USDA Farm Service Agency (FSA), Cooperative Extension, the local Emergency Management Agency, or other interested entities. The *Ag Damage Assessment Form* provides a structured format and instructions for teams or individuals to more accurately collect the important information, assess the damage, and determine an accurate economic loss estimate.

Regardless of the intended use of disaster loss information, the completion of this “*Assessment Form*” can provide rapid and accurate information for those interested in damage assessment and economic loss. Photos illustrating the losses add value to the assessment.

### **What is the value in using the *Ag Damage Assessment Form*?**

By completing an ***Ag Damage Assessment Form*** to document the extent of damages caused by a disastrous event, and by determining the value of losses, producers/growers and agencies will have more accurate information that could be used to make a State or Federal disaster declaration. The ***Assessment Form*** includes sections to collect and assess information for each damage location site, the type of disastrous event, and specific lists of the damages, destruction, and losses for agricultural production animals, crops, facilities and structures, stored materials, and machinery and equipment. This process will eliminate much of the guesswork and general evaluations for agricultural damage assessment. Each section provides areas to more accurately estimate or measure the damage; to record the size or numbers of affected animals, plants, facilities, structures/facilities, stored materials, and machinery/equipment; and a method to estimate the potential economic losses.

### **Who should or could use this *Ag Damage Assessment Form*?**

The information collected using the ***Ag Damage Assessment Form*** could be used by FSA County Emergency Boards (CEB), Cooperative Extension, local Emergency Management Agencies, or by anyone who has need of third-party independent and accurate damage assessment information for agriculture. The information collected using this Assessment Form could be useful for producers to document losses for insurance or tax purposes.

### **When should the *Ag Damage Assessment Form* be used?**

Anytime there is need for damage assessment to agricultural commodities or agricultural facilities this Assessment Form and its instructions can be helpful.

### **Who can benefit from use of the *Ag Damage Assessment Form*?**

Anyone who needs to have an accurate assessment of the extent and value of damage to agricultural commodities or agricultural facilities will benefit, including producers/growers, FSA-CEB, Cooperative Extension, county Emergency Management Agencies, county government, insurance companies, and other agencies and organizations who deal with disasters affecting agriculture.

## How do I use the *Ag Damage Assessment Form*?

The **Assessment Form** is divided into the following sections: identification of the disastrous event and the name and contact information for the producer/grower who sustained the loss; and sections to identify and value losses of animals, crops, structures/facilities, store materials, and machinery/equipment.

**Sections 1 through 3** provide the identification and contact information for the person doing the assessment and for the producer/grower who sustained the loss; details about the disastrous event including time and the location where the loss occurred. If the loss occurred at a site other than where the commodity was grown, provide the specific location. Examples would include farmer-owned commodities stored off-site such as a local grain elevator or local cooperative. Another legitimate off-site damage could be from an incident in which the farmer-owned commodity was damaged during transit. Also included in this section is a question referencing the possibility of a biosecurity breach or potential exposure to diseases or contamination. For such a possible loss, describe the event in detail and the concern for the potential effect of the breach in biosecurity. Examples could include wild birds mingling with a biosecure poultry house following damage to the poultry house.

Signatures for the person doing the assessment and for the owner/operator are requested to ensure accuracy and credibility.

**Section 4** deals specifically to damage or loss of production **Animals**. A chart listing most production animals is provided, but if a specific class of animal is not included on the chart, information can be entered in the “other animals” listing. Information should be as detailed as possible and include the specific type or weight range of animals affected. As the result of some disastrous events, there may be animals destroyed by the event, injured, or possibly missing. In each situation, be as specific as possible to list actual numbers of animals in each category. If animals are diseased from an incident or exposure and showing symptoms that may develop over time to cause health issues, including loss of vigor or possible death for the animal, please check the clinical signs provided at the end of the section.

For animals that are grown under contract, the process for determining the loss is the same; however, the loss could be shared between the contractor and the grower. The contract should specify the exposure to risk and loss. For most growers who are raising animals under contract, the potential loss is less than to a grower who is not raising them under a contract.

For each section, the assessor is asked to provide the source used for determining current values. This resource is extremely important and must be cited and recognized as a credible source. Examples may include local and regional livestock markets, recent sales, and local FSA data. The local FSA office can provide current values for animal loss. The assessor must use a credible source for determining local

market values for production animals. High value animals, such as breeding stock, closed herds, certified disease-free stock, or other categories of animals may be valued at higher than local market values. Please list the reasons for requesting higher than local market value and list sources used for higher values. Resources may include values from recent sales of comparable animals. Fair and reasonable judgment must be exercised to establish and document loss and value.

**Section 5** focuses on **Crop Losses**. Determining the loss and value for crop damage can be more complicated than for animals. When a crop is totally lost it is easier to determine the value, but crops are not always completely destroyed and often are only partially lost. Sometimes the damage occurs on only one part of a field. Certain damage may result in a loss of quality or a partial reduction in potential yield. After damage, there may be alternative use for a damaged crop that may reduce but not eliminate the value of the crop. Perennial crops may be affected but not destroyed outright. It may take several years for the damage to be realized. Assessors are tasked with providing their best judgment, based on experience and credible resources, for the degree of loss and a determination of the value.

The cost of establishment for a crop can be reported as a loss. If there is a complete crop loss and no option for alternative use, the fixed cost associated with crop establishment may be lost. Seed, fertilizer, pesticide, and other fixed costs may be considered as a loss, particularly for annual crops or perennial crops damaged during the year of establishment. It is difficult to fairly determine the actual loss for some perennial crops such as grapes, small fruits, and tree fruits. The total destruction of such a perennial crop may constitute a loss of the yield for the current year, and the potential loss for the remainder of the expected life of the crop which may be multiple years. In such a case, the expected normal annual yield loss should be documented and reference should be made relative to the remaining life expectancy of the perennial crop. If a perennial crop planting is destroyed prior to coming into productivity, the cost of establishment and annual cost associated with the normal management of that perennial crop could be included, such as fertilizer, pesticides, labor for crop management, etc. Fair and reasonable judgment must be exercised to determine loss and value. Sources for determining market value include local elevators, recent market reports, trade reports such as the Chicago Board of Trade, and similar to the loss values for animals, the local FSA office has access to current market values for most crop commodities. Determining the potential yield reduction as the result of a disastrous event can be difficult. Resources to assist assessors include the local Extension Office, the State land-grant University Extension faculty, the local FSA office, the USDA National Ag Statistics Service office, and various science-based research data and fact sheets that provide assistance to determine yield reductions at various stages of crop development.

**Section 6** deals with **Structures and Facilities Losses**. Included in this section may be buildings; storage bins; fences, corrals, animal handling and holding structures; irrigation ditches and equipment; land modifications such as terraces, swales and diversions, and lagoons; manure storage facilities; silos; bunkers; bridges; and water systems including wells, developed springs, and watering facilities.

Since there are such a variety of ag structures and facilities, the assessor will need to provide detail in the description and size/capacity/function areas of the **Assessment Form**. Most construction material types are included, but if the affected structure material is not included, or the structure is constructed with a combination of materials, be sure to accurately describe the damaged structure. Age may have an effect on value, but the function of even an aged building may imply a high-value structure. There are four basic damage categories with descriptions for each from which to choose. The open narrative area includes a request for the assessor to indicate whether the estimated loss is for the repair of the unit; or if a total loss, the replacement cost for a similar unit. Structural damage evaluation can be challenging, as there will likely be regional differences for the value/cost for the same structure. Local values are critical. Local building contractors, ag engineers, and ag suppliers may be valuable resources to help determine both the extent of damage to structures and facilities, and the estimated loss for damage to structures and facilities. Photos to document the damages are critical.

**Section 7** addresses **Stored Materials Losses** because not all damage to ag commodities occurs while the animals or crops are growing. Significant loss can occur to ag materials that may be in storage. Harvested grain, manufactured feed such as 16% dairy feed, harvested forages stored in upright or bunker silos, baleage or bagged forage, feed commodities like soybean meal, feed premix, salt, etc., can be damaged or destroyed in a disastrous event. Harvested crops being held for shipment and stored crops such as cotton, tobacco, or peanuts can sustain damage even after harvest but prior to being sold or processed. Other stored ag materials can also be damaged which results in losses for the producer. Fuel, pesticides, animal medications, animal bedding products, seed, and other economically significant materials in storage should be listed in Section 7; Stored Materials Losses. Assessors should be sure to describe the details of the loss, including percent dry matter for stored forages and feeds, and a description of how the material was stored, such as in a barn or shed, a silo, bin, bag, or other storage unit. Be sure to document with photos and with the source for determining the economic value for the loss. Sources for determining the value of damaged or destroyed stored material will be similar to the sources for crops and structures. Local markets, grain elevators, cooperatives, etc., should be considered as well as the local FSA and local Cooperative Extension offices. For materials that have been purchased, such as seed and manufactured feed, fuel, fertilizer, etc., receipts for the purchase of the material would be valuable to determine the actual value.

**Section 8** on the **Assessment Form** allows the assessor to list **Machinery and Equipment Losses** that may have been damaged or destroyed. Detailed descriptions for make, model, year, VIN, or serial number are important for documenting and determining the loss. Local dealers as well as FSA and Cooperative Extension can provide value estimates. Indicate whether or not the loss is for damage, or for destroyed. Pictures of the damage are valuable. Include sales receipts if available for any of the damaged machinery.

**By using the *Ag Damage Assessment Form* and listing specific agricultural losses (animals, crops, structures and facilities, stored materials, and machinery and equipment) and then determining the unit economic value losses, a more accurate estimate of the dollar loss can be determined. Assessors are encouraged to use local values from markets, crop and livestock reports, local and regional building and structures costs, etc., to determine the actual loss for each agricultural commodity, and including structures and facilities, stored materials, and machinery and equipment.**

<http://extension.psu.edu/agdamage>

**PROJECT SUPPORTED BY:**

PENNSSTATE



Cooperative Extension  
College of Agricultural Sciences

Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Cooperative Extension is implied.



United States Department of Agriculture National Institute of Food and Agriculture

This material is based upon work supported by the United States Department of Agriculture (USDA) – National Institute of Food and Agriculture (NIFA) under Award No. 2010-41210-21712.

Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of USDA – NIFA.