

Crop Insurance

FOR NORTHEAST
NURSERY AND
GREENHOUSE
CROPS

Crop insurance is a valuable risk management tool that allows growers to insure against losses due to adverse weather conditions, fire, earthquake, volcanic eruption, failure of irrigation water supply, uncontrollable diseases and insects, and wildlife. It shifts unavoidable production risks to an insurance company for the payment of a fixed amount of premium per acre.

Participation in the crop insurance program in 12 Northeastern states (Pennsylvania, New York, New Jersey, West Virginia, Delaware, Maryland, Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island) has steadily increased over the past few years. Sign-up for crop insurance exceeded 3.2 million acres in 2003. In most years, the amount paid by insurance companies for crop losses has exceeded the total amount producers paid for the coverage. In 2002, Northeastern producers with crop insurance received \$7.61 for crop losses for every \$1 they paid in premiums and in 2003 they received \$4.02 for every \$1 they have paid in premiums (Table 1).

The federal government has decided that a crop insurance program is preferable to disaster payments. Disaster programs often involve political tradeoffs that can lead to deficit spending. It is better to have an insurance program in place that is available nationwide and gives producers the freedom to choose the level of coverage they need based on their own yield history. A minimum level of crop insurance, called CAT insurance, is available to all producers regardless of size at no premium cost (all premiums are paid by the federal government). Higher levels of crop insurance (buy-up protection) are also federally subsidized, with producers paying only 33 to 62 percent of the actual cost of the insurance (depending on the level of coverage selected).

Nursery crops account for about 25 percent of the total value of crop insurance protection in force in the Northeast. Over \$244 million of nursery plants in the Northeast were protected by crop insurance in 2004 (Table 2). The total cost to producers for this coverage was less than \$135,000 because the U.S. government heavily subsidizes crop insurance.

The purpose of this publication is to introduce the types of crop insurance available to nursery crop producers by

- explaining how insurable inventory values are calculated.
- comparing the cost of crop insurance and the levels of cash-flow protection available.
- listing important dates for buying nursery crop insurance in the Northeast.

Types of Crop Insurance Policies

Nursery crop insurance for containerized and field-grown plants at CAT and buy-up levels is available for eligible nursery crops in all northeastern counties. Nursery crop insurance is available only for plants on the eligible plant list. Eligible plants are classified into one of thirteen categories listed in Table 3. Protection is also available on a whole-farm basis as Adjusted Gross Revenue (AGR) insurance in some counties and as AGR-Lite in most counties the Northeast (Table 6).

Before considering a particular kind of crop insurance policy, you should first consider how much risk you are willing to accept and what you need to protect. Here are some common objectives:

- 1) Reducing year-to-year income variability.
- 2) Providing a minimum cash flow to cover input costs.
- 3) Securing adequate credit.

Nursery Crop Insurance

Nursery crop insurance is available in all counties in all states, provided certain criteria are met. Insurance coverage will apply to all field-grown and containerized nursery plants in that county that meet the following criteria:

- It appears on the **eligible plant list**.

- It meets all the requirements for insurability.
- It is grown in an appropriate medium acceptable for production practices.
- It has cold protection if the eligible plant list requires it for that crop and hardiness zone.
- The individual pot or cell does not fall below the minimum insurable size.

Plants not eligible for Nursery Crop Insurance are

- stock plants
- plants grown for sale as Christmas trees

Insurable causes of loss include

- adverse weather conditions including wind, hurricane, and freeze (adequate and operational cold protection measures must be in place if cold protection is required by the eligible plant list for your hardiness zone)
- fire (provided weeds and undergrowth are chemically or mechanically controlled)
- failure of the irrigation water supply (if due to an insurable loss)
- delay in marketability of plants resulting in reduced plant value (if due to an insurable cause)
- wildlife

Uninsurable causes of loss are

- disease or insect infestation (unless effective control measures for the infestation do not exist)
- inadequate power supply (unless such inadequacy is a result of an insurable cause of loss)
- inability to market your nursery products due to quarantine, boycott, or buyer refusal

Table 1. Value of insured crops, acres insured, premiums and losses paid, and benefit/cost ratio for all types of crop insurance in the Northeast for 1995, 2002 and 2003.

Year	Protection In Force (\$)	Acres Insured	Total Premium (\$)	Producer Premium (\$)	Losses Paid (\$)	Producer Benefit/Cost Ratio
1995	350,350,112	3,158,960	20,370,880	5,589,539	15,918,512	2.85
2002	832,968,824	3,191,022	54,062,858	17,288,439	131,611,569	7.61
2003	951,327,921	3,219,568	83,680,965	19,445,403	78,154,095	4.02

- collapse or failure of buildings/structures (unless caused by an insurable cause of loss)
- failure of plants to grow to an expected size due to drought

Types of Insurance

Nursery Crop Dollar Plan (Dollar) insurance protects producers against losses due to adverse weather conditions (such as wind, hurricane, and freeze), fire, wildlife damage, failure of irrigation supply, and delay in marketing plants resulting in reduced plant value (if delay is due to an insurable cause). Producers must wholesale at least 50 percent of their product to qualify for crop insurance.

Growers select from 50 to 75 percent of their plant inventory value to insure. **Plant inventory value** is calculated by adding the value of all insured containerized and field-grown nursery crops. The value of each crop is determined by the lower of the grower's wholesale price or the predicted crop price established annually by the United States Department of Agriculture, Risk Management Agency (USDA, RMA) (available on CD-ROM from your crop insurance agent). If the market value is less than the plant inventory value of insured nursery crops, the grower is paid for the loss based on the difference. Loss payments are calculated by multiplying this difference by the insured percentage of the established price selected when crop insurance was purchased (Table 4).

Catastrophic crop insurance (CAT) was introduced in 1995 to replace ad hoc disaster assistance programs enacted by Congress and to provide an insurance-based producer safety net that reflects a grower's actual production history and insurance principles. The insurance premium for CAT is paid totally by the federal government. For a flat administrative fee of \$100/crop/county, producers get a crop insurance price guarantee of 27.5 percent of their farm's insured Plant Inventory Value. Compared to higher levels of coverage, CAT provides only a low level of protection against yield losses. For some diversified growers this level of coverage is enough to protect them against severe cash-flow shortfalls.

Buy-up coverage is based on the cost of growing a crop in a specific area. A loss occurs when the annual value of the crop is less than the amount of insurance. The maximum dollar amount of insurance is stated on the actuarial document. Growers may select a percent of the maximum

Table 2. Number of nursery policies sold, value of plants protected, producer premiums and fees for nursery crop insurance in the Northeast, 2004.

State	Number of CAT Policies Sold	Number of Buy-up Policies Sold	Total Policies	Protection in force (\$)	Total Premium (\$)	Producer Net Premium (\$)	Producer Policy Fees (\$)
CT	16	3	19	42,878,408	459,296	9,774	1,690
DE	5	1	6	3,256,500	48,306	637	530
MA	11	3	14	9,431,055	87,261	378	1,190
MD	40	23	63	65,554,125	872,867	77,123	4,690
ME	1	0	1	261,250	2,636	-	100
NH	5	1	6	4,656,575	49,841	598	530
NJ	32	2	34	40,303,044	564,749	-	3,260
NY	43	2	45	35,268,890	479,102	516	4,360
PA	58	10	68	41,122,452	408,615	22,266	6,100
RI	2	0	2	586,575	6,621	-	200
VT	2	0	2	239,250	2,848	-	200
WV	5	0	5	1,003,750	10,990	-	500
Total	220	45	265	244,561,874	2,993,132	111,292	23,350

dollar amount equal to CAT (catastrophic level of coverage) or additional coverage levels. The dollar plan is available for nursery crops in every northeastern county. With buy-up coverage, the loss of a crop in only one category of the thirteen categories of nursery crops listed in Table 3 could result in a collectable loss because each plant type is treated separately for insurance purposes. This is not true for CAT coverage. To collect on a CAT policy, the loss is calculated for the entire nursery business, not on individual crop categories. The administrative fee for buy-up policies is \$30/crop/county. For insurance purposes, nursery is considered one crop.

REVENUE INSURANCE PLANS:

Adjusted Gross Revenue (AGR) insures the revenue of the entire farm rather than an individual crop by guaranteeing a percentage of average gross farm revenue, including up to 35 percent livestock revenue. The plan uses information from the past five consecutive years of a producer's Schedule F or Schedule C tax forms to calculate the policy revenue guarantee. Buy-up coverage is also required if program crops exceed 50 percent of farm revenues. AGR coverage is currently available in counties listed in Table 6. The maximum policy size for AGR is \$6.5 million. **AGR-Lite** is a new whole farm revenue product that provides protection for all crops and animal revenues. It is currently available as a pilot program in most counties in the Northeast for eligible growers with adjusted gross revenues of up to \$512,821 (based on a maximum protection limit of \$250,000 annually at the 65 percent coverage level and the 75 percent payment rate). Unlike regular AGR, AGR-Lite is streamlined in

various ways and has no limitation on livestock income or requirement for the purchase of Buy-up Dollar insurance. The sign-up deadline for AGR and AGR-Lite is January 31.

Cold Protection Requirements

Some container plants require cold protection to retain insurance coverage against cold damage. Each county is assigned a hardiness zone designation for insurance purposes. Some container plants are not insurable in certain hardiness zones, and others require cold protection in certain hardiness zones. The eligible plant list designates the minimum hardiness zone for each insurable field-grown plant. Field-grown plants are not insurable below the minimum hardiness zone specified for each plant. The cold protection requirements for each plant based on the hardiness zone are listed in the eligible plant list (available on CD-ROM from your crop insurance agent).

Table 3. Plant categories available for nursery crop insurance.

Annual
Broadleaf Evergreen Trees
Broadleaf Evergreen Shrubs
Coniferous Evergreen Trees
Coniferous Evergreen Shrubs
Deciduous Shrubs
Deciduous Trees (Shade and Flower)
Fruit and Nut Trees
Foliage
Ground Cover and Vines
Herbaceous Perennials
Roses
Small Fruits

Plant Size

All eligible nursery plants are considered either field-grown or container-grown, with sizes listed for each category. Field-grown plants are listed by plant size for height, width, or caliper. Caliper is determined by measuring tree diameter six inches above the soil line up to and including a caliper of four inches and twelve inches above the soil line for larger sizes. Plant sizes below the smallest listed in the Base Price Table are not insurable. Containerized plants are listed by the container size with volume units of measure. Each cell of insurable multiple-cell nursery containers (cellpacks, jumbo packs, six packs, pony packs, plug packs, etc.) will be valued as a separate plant.

Plant Inventory Value

The eligible plant list and **plant price schedule** are available on CD-ROM for use on personal computers. The software allows for searching for a plant by botanical name, commercial botanical name, common name, or key word. The program also is intended to compile a plant inventory list for estimating the nursery plant inventory value. The program allows the plant inventory list to be printed.

EXAMPLE OF PLANT PRICE INSURANCE CALCULATION

Botanical Plant Name: *Acer x freemanii*
 "jeffersred," common name: Autumn Blaze Maple (5-gallon container)

Price on the nursery eligible price list schedule = \$19.78

Grower's Lowest Wholesale Price = \$23.50

Insurance is the lesser of the Eligible Plant List Price (\$19.78) or Grower's Lowest Wholesale Price (\$23.50)

Insurance price - \$19.78

Example of a nursery loss using the Dollar Plan:

\$100,000 Plant Inventory Value
 x .65 Coverage Level
 \$ 65,000 Unit Amount of Insurance

In the event of a loss:

\$100,000 Field Market Value before loss
 - \$50,000 Field Market Value after loss
 \$50,000 Unit Amount of Insurance
 - \$35,000 Deductible (100% - Level of Coverage) x Inventory Value
 = (100% - 65%) x \$100,000

\$15,000 Indemnity

Table 4. Examples of indemnities paid for various levels of coverage and various levels of loss on \$100,000 of plant inventory value.

Loss	Coverage Level						
	CAT (27.5%)	50%	55%	60%	65%	70%	75%
0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50%	\$0	\$0	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000
75%	\$2,500	\$25,000	\$30,000	\$35,000	\$40,000	\$45,000	\$50,000
100%	\$27,500	\$50,000	\$55,000	\$60,000	\$65,000	\$75,000	\$75,000

Table 5. Important dates for nursery crop insurance in the Northeast.

	Type of Insurance	
	Nursery	AGR
Sales closing	5/31	1/31
Waiting period		
Purchased 10/1 - 5/31	30 days	10 days
Purchased 6/1 - 9/30	until 10/1	
Insurance year *	10/1 - 9/30	1/1 - 12/31
Revisions to existing policy	5/31	11/30
Provide plant inventory value report		
Existing policy	9/1	n/a
New policy	with application	

* Nursery coverage will end the earliest of the following:
 • The date of final adjustment of a claim when total indemnities equal the amount of insurance
 • Removal of bare root nursery plant material from the field
 • Removal of all other insured plant material from the nursery
 • 11:59 p.m. on 9/30

Where Can I Find a Crop Insurance Agent?

- Ask your neighbors for their recommendations. Other growers are one of the best sources of information on where to find a knowledgeable crop insurance agent.
- Check with the insurance agency where you purchase other types of insurance. Often you can obtain crop insurance through an agent you already use for your farm, automobile, liability, fire, health, or life insurance needs. Many insurance agencies have agents who specialize in crop insurance.
- Check with businesses or organizations you use for farm business management services. Your banker, cooperative, or a farm organization you belong to may be able to recommend insurance agencies that handle crop insurance.
- Use the USDA Risk Management Agency's Web site (www.rma.usda.gov) to locate an agent in your area. First, click on "Agent Locator" in the left tool bar. Then, click on "Crop Insurance Agent" under the "Agent Locator/Insurance Providers List." Finally, click on your state and hit the search button

to access a list of agents who are licensed to sell crop insurance in your state.

Important Dates

Claims. Claims for crop insurance are settled after taxes are filed for the insurance year. Many producers do not buy Buy-up or AGR coverage because they self-insure with other risk management tools. Many do not buy CAT coverage because they feel if a catastrophic event occurs, the U.S. government will offer disaster assistance. However, disaster assistance will probably not save the business because disaster payments typically arrive two to three years after a disaster. Crop insurance payments occur as soon as the impact of the loss is determined. A producer can receive disaster assistance as well as crop insurance payments.

Nursery Crop Insurance. The insurance year for nursery crop insurance runs from October 1 through September 30. For existing policies, coverage begins on October 1 (Table 5). New applications for the coming crop year may be accepted until May 31st, with coverage beginning thirty days after receipt of your signed application, if accepted. The premium for a new policy is prorated according to the

month coverage begins. Applications accepted after May 31st will not begin coverage until October 1st.

Adjusted Gross Revenue. The sales closing date for Adjusted Gross Revenue (AGR) crop insurance is January 31st. The policy renews on January 1st for existing policies. Insurance begins ten days after a properly completed application is received for new policies. The insurance year is the calendar year in which the sales closing date occurs for both calendar and fiscal year IRS filing periods.

Definition of Crop Insurance Terms and Deadlines

Amount of insurance—The result of multiplying the full value of all insurable plants in each basic unit by the selected coverage levels (plant categories from Table 3).

Eligible plant list—A list of botanical and common names of insurable plants, including winter protection requirements (available on CD-ROM from your agent).

Sales closing date—Last day to apply for coverage; the sign-up deadline.

Plant inventory value reporting date—Last day to submit the plant inventory value report. If not reported, insured plant value will be the same as the prior year value.

Date to file notice of crop damage—Within 72 hours of initial discovery of damage (but not later than 15 days after the end of the insurance period). There may be additional requirements by crop. An adjuster must have the opportunity to inspect the crop before it is destroyed or put to another use.

End of insurance period—Date when crop insurance coverage ceases for the crop year.

Payment due date—Last day to pay the premium without being charged interest.

Cancellation date—Last day to request cancellation of policy for the next year.

Debt termination date—Date insurance company will terminate policy for non-payment.

Billing date—Date crop insurance premiums are due. Crop insurance premiums not due until after the cropping season is over and any losses have been paid.

Table 6. Counties where Nursery and AGR crop Insurance are available in the Northeast.

Nursery	All counties in all states
AGR	
Connecticut	All counties
Delaware	All counties
Maine	All counties
Maryland	Anne Arundel, Baltimore, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Harford, Howard, Kent, Montgomery, Prince George's, Queen Anne's, St. Mary's, Somerset, Talbot, Wicomico, and Worcester (20 counties), and Baltimore City
Massachusetts	All counties
New Hampshire	All counties
New Jersey	All counties
New York	Cayuga, Chautauqua, Erie, Genesee, Monroe, Niagara, Onondaga, Ontario, Orange, Orleans, Oswego, Seneca, Suffolk, Ulster, Wayne, and Yates
Pennsylvania	Berks, Carbon, Columbia, Crawford, Erie, Fayette, Lackawanna, Lancaster, Lehigh, Monroe, Northampton, Schuylkill, Westmoreland, and York
Rhode Island	All counties
Vermont	All counties
West Virginia	Not available
AGR-Lite	Most counties in the Northeast (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia)

More information on crop insurance and risk management can be found on the Internet:

United States Department of Agriculture, Risk Management Agency
<http://www.rma.usda.gov>

National Ag Risk Education Library
<http://www.agrisk.umn.edu>

Northeast Center for Risk Management Education
<http://www.necrme.org>

Cornell Risk Management Web Site
<http://www.agrisk.cornell.edu>

Garden State Crop Insurance Education Initiative
<http://salem.rutgers.edu/cropinsurance>

New Jersey Department of Agriculture Web Site
<http://www.state.nj.us/agriculture>

Penn State Crop Insurance Education Web Site
<http://cropins.aers.psu.edu>

Pennsylvania Department of Agriculture Web Site
<http://www.pda.state.pa.us>

Prepared by:

Robin G. Brumfield
 Professor and Specialist in Farm Management
 Department of Agricultural, Food and Resource Economics
 Rutgers, The State University of New Jersey

and

Jayson K. Harper
 Professor of Agricultural Economics
 Department of Agricultural Economics and Rural Sociology
 The Pennsylvania State University

The authors would like to acknowledge the assistance of Sam Coburn and Gene Gantz of the United States Department of Agriculture, Risk Management Agency in preparing this publication.



PENNSTATE



College of Agricultural Sciences
Cooperative Extension



**PENNSYLVANIA CROP INSURANCE EDUCATION & PARTICIPATION PROGRAM
A PARTNERSHIP OF THE USDA RISK MANAGEMENT AGENCY
AND THE PA DEPARTMENT OF AGRICULTURE**

Visit Penn State's College of Agricultural Sciences on the Web: <http://www.cas.psu.edu>

Penn State College of Agricultural Sciences research, extension, and resident education 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 the Penn State College of Agricultural Sciences is implied.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-5901, Tel 814-865-4700/V, 814-863-1150/TTY.

© 2004 The Pennsylvania State University DS75875clh