

# Common Names for Plant Diseases

In 1978 The American Phytopathological Society established a committee to develop listings of APS approved names for plant pathogens and the diseases they incite. These names are then considered the preferred names for use in APS journals and other publications. The committee on Standardization of Common Names for Plant Diseases published lists of preferred names for 35 commodities in 1985 (Plant Disease 69:649-676), eight in 1988 (Plant Disease 72:567-574), and 10 in 1991 (Plant Disease 75:225-230).

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The following five lists are presented for reference. They were previously edited by committee members and taxonomists and published for comment in *Phytopathology News*. To achieve long-term uniformity in nomenclatural standards, the committee has adopted the taxonomic system published in *Fungi on Plants and Plant Products in the United States*, by Farr et al, APS Press, 1989. It is expected that the lists will not be revised for at least four years so that stability in use of common names will be achieved.

The committee thanks the collators of each list and those who have been involved in many days of editorial process.

Jenne Bass, *Chairman, Committee on Standardization of Common Names for Plant Diseases*

## Cranberry (*Vaccinium macrocarpon* Alt. = *Oxycoccus macrocarpus* (Alt.) Pers.)

Steven N. Jeffers and Donald M. Boone, Primary Collators

Common name	Pathogen or cause
Bitter rot	<i>Glomerella cingulata</i> (Stoneman) Spauld. & H. Schrenk = <i>G. cingulata</i> (Stoneman) Spauld. & H. Schrenk var. <i>vaccinii</i> Shear (anamorph: <i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. in Penz.)
Black spot	<i>Mycosphaerella nigromaculans</i> Shear (anamorph: <i>Ramularia nigromaculans</i> Shear)
Black rot	<i>Apostrasseria lunata</i> (Shear) Nag Raj = <i>Ceuthospora lunata</i> Shear (teleomorph: <i>Phyacidium lunatum</i> Dicosmo et al) <i>Strasseria geniculata</i> (Berk. & Broome) Höhn <i>S. oxycocci</i> (Shear) Shear
Blotch rot	<i>Physolepta vaccinii</i> (Shear) Arx & Muller = <i>Acanthorhynchus vaccinii</i> Shear
Botryosphaeria fruit rot and berry speckle	<i>Botryosphaeria vaccinii</i> (Shear) Barr = <i>Guignardia vaccinii</i> Shear (anamorph: <i>Phyllosticta elongata</i> G. J. Weidemann in G. J. Weidemann et al)
Cladosporium leaf spot	<i>Cladosporium oxycocci</i> Shear
Cottonball (hard rot and tip blight)	<i>Monilinia oxycocci</i> (Woronin) Honey = <i>Sclerotinia oxycocci</i> Woronin
Dodder	<i>Cuscuta compacta</i> Juss. <i>C. gronovii</i> Willd.
Early rot (scald)	<i>Phyllosticta vaccinii</i> Earle
End rot	<i>Godronia cassandrae</i> Peck <i>G. cassandrae</i> Peck f. <i>vaccinii</i> Groves (anamorph: <i>Fusicoccum putrefaciens</i> Shear)
Fairy ring	<i>Psilocybe agrariella</i> Atk. var. <i>vaccinii</i> V. Charles
False blossom (Wisconsin false blossom)	Mycoplasmalike organism
Flooding injury	Oxygen deficiency
Gibbera leaf spot and berry speckle	<i>Gibbera myrtilli</i> (Cooke) Petr.
Nematodes	<i>Criconeoides</i> spp. <i>Helicotylenchus</i> spp. <i>Hemicycliophora</i> spp. <i>Pratylenchus</i> spp. <i>Trichodorus</i> spp. <i>Tylenchorhynchus</i> spp.

continued

## Cranberry (continued)

Common name	Pathogen or cause
Phytophthora root and runner rots	<i>Phytophthora</i> spp. <i>Phytophthora cinnamomi</i> Rands
Powdery mildew	<i>Microsphaera vaccinii</i> (Schwein.) Cooke & Peck = <i>M. penicillata</i> (Wallr.:Fr.) Lév. var. <i>vaccinii</i> (Schwein.) W. B. Cooke
Purple berry	Physiological
Red gall (cranberry gall)	<i>Synchytrium vaccinii</i> F. Thomas
Red leaf spot	<i>Exobasidium rostrupii</i> Nannf. = <i>E. vaccinii</i> (Fuckel) Woronin
Red shoot	<i>Exobasidium perenne</i> N. Nickerson
Ringspot	Virus (most likely)
Ripe rot (white rot)	<i>Coleophoma empetri</i> (Rostr.) Petr. = <i>Sporonema oxycocci</i> Shear
Rose bloom	<i>Exobasidium oxycocci</i> Rostr. ex Shear
Rust	<i>Pucciniastrum vaccinii</i> (G. Wint.) Jørst. = <i>P. myrtilli</i> (Schumach.) Arth.
Sterile breakdown (physiological breakdown, physiological rot)	Physiological (triggered by bruising or some other injury)
Sun scald (sunburn)	Overheating of fruit from direct exposure to sun
Twig blight	<i>Lophodermium hypophyllum</i> (Dearn. & House) Shear in Shear et al. = <i>L. oxycocci</i> (Fr.) P. Karst var. <i>hypophyllum</i> Dearn. & House <i>L. oxycocci</i> (Fr.) P. Karst. <i>Phomopsis vaccinii</i> Shear in Shear et al (teleomorph: <i>Diaporthe vaccinii</i> Shear in Shear et al) <i>Synchronoblastia crypta</i> Uecker & Caruso <i>Phomopsis vaccinii</i> Shear in Shear et al
Upright dieback	<i>Phomopsis vaccinii</i> Shear in Shear et al (teleomorph: <i>Diaporthe vaccinii</i> Shear in Shear et al) <i>Synchronoblastia crypta</i> Uecker & Caruso <i>Phomopsis vaccinii</i> Shear in Shear et al
Viscid rot	<i>Phomopsis vaccinii</i> Shear in Shear et al
Yellow rot	<i>Botrytis</i> spp.
Miscellaneous fruit rots	<i>Gloeosporium minus</i> Shear <i>Penicillium</i> spp. <i>Pestalotia vaccinii</i> (Shear) Guba <i>Synchronoblastia crypta</i> Uecker & Caruso
Miscellaneous leaf spots or leaf drops	<i>Botryosphaeria vaccinii</i> (Shear) Barr <i>Eupropoella oxycocci</i> (Dearn. ex Cash) B. Eriksson = <i>Naevia oxycocci</i> Dearn. ex Cash in Shear et al <i>Godronia cassandrae</i> Peck <i>Pestalotia vaccinii</i> (Shear) Guba = <i>Pestalotia</i> (Pestalozzia) <i>guelpini</i> Desmaz. var. <i>vaccinii</i> Shear <i>Pyrenobotrys compacta</i> (Peck) B. Eriksson = <i>Gibbera compacta</i> (Peck) Shear = <i>Venturia compacta</i> Peck

**Mint (*Mentha piperita* L., *M. cardiaca* Baker,  
*M. spicata* L., and *M. arvensis* L.)**

**R. J. Green, Jr., and C. B. Skotland, Primary Collators**

Common name	Pathogen or cause
Anthraxnose	<i>Sphaceloma menthae</i> Jenk.
Black stem rot	<i>Phoma strasseri</i> Moesz
Leaf blight	<i>Cephalosporium</i> sp.
Nematodes, parasitic	
Leaf and bud nematode	<i>Aphelenchoides parietinus</i> (Bastian) Steiner
Lesion nematode	<i>Pratylenchus neglectus</i> (Rensch) Filipjev & Schuurmans-Stekhoven <i>P. penetrans</i> (Cobb) Filipjev & Schuurmans-Stekhoven
Needle nematodes	<i>Longidorus elongatus</i> (de Man) Thorne & Swanger <i>L. sylphus</i> Thorne
Pin nematode	<i>Paratylenchus hamatus</i> Thorne & Allen <i>P. microdorus</i> Andrassy = <i>P. macrophallus</i> (de Man) Goodey
Root-knot	<i>Meloidogyne hapla</i> Chitwood
Powdery mildew	<i>Erysiphe cichoracearum</i> DC.
Rust	<i>Puccinia menthae</i> Pers.:Pers.
Septoria leaf spot	<i>Septoria menthae</i> Oudem.
Stem and stolon canker	<i>Rhizoctonia solani</i> Kühn (teleomorph: <i>Thanatephorus cucumeris</i> (A. B. Frank) Donk)
Stolon decay	<i>Fusarium solani</i> (Mart.) Sacc. (teleomorph: <i>Nectria haematococca</i> Berk. & Broome)
Tomato spotted wilt	Tomato spotted wilt virus
Verticillium wilt	<i>Verticillium dahliae</i> Kleb.
White mold stem rot	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary

**Mustard (*Brassica juncea* (L.) Czernj. & J. M. Coulter var. *crispifolia* L. H. Bailey and *B. nigra* (L.) W. Koch)**  
**P. H. Williams and L. R. Saha, Primary Collators**

Common name	Pathogen or cause
Alternaria black spot	<i>Alternaria brassicae</i> (Berk.) Sacc. <i>A. brassicicola</i> (Schwein.) Wiltshire <i>A. raphani</i> Groves & Skolko
Anthraxnose	<i>Colletotrichum higginsianum</i> Sacc. in Higgins
Autogenic necrosis	Genetic disorder
Bacterial black rot	<i>Xanthomonas campestris</i> pv. <i>campestris</i> (Pammel) Dowson
Bacterial leaf rot	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> (McCulloch) Young et al
Bacterial soft rot	<i>Erwinia carotovora</i> (Jones) Bergey et al <i>Pseudomonas marginalis</i> pv. <i>marginalis</i> (Brown) Stevens
Black leg	<i>Leptosphaeria maculans</i> (Desmaz.) Ces. & De Not. (anamorph: <i>Phoma lingam</i> (Tode:Fr.) Desmaz.)
Black root	<i>Aphanomyces raphani</i> Kendrick
Cercospora leaf spot	<i>Cercospora brassicicola</i> Henn.
Clubroot	<i>Plasmodiophora brassicae</i> Woronin
Damping-off	<i>Fusarium</i> spp. <i>Rhizoctonia solani</i> Kühn (teleomorph: <i>Thanatephorus cucumeris</i> (A. B. Frank) Donk)
Downy mildew	<i>Peronospora parasitica</i> (Pers.:Fr.) Fr.
Head rot	<i>Rhizoctonia solani</i> Kühn
Leaf spot	<i>Myrothecium roridum</i> Tode:Fr. <i>Phyllosticta brassicae</i> Currey & Westend. = <i>P. brassicina</i> Sacc.
Powdery mildew	<i>Erysiphe polygoni</i> DC.
Root-knot	<i>Meloidogyne</i> spp.
Sclerotinia stem rot	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary
Southern blight	<i>Sclerotium rolfsii</i> Sacc. (teleomorph: <i>Athelia rolfsii</i> (Curzi) Tu & Kimbrough)
Virus diseases	
Cauliflower mosaic	Cauliflower mosaic virus

continued

**Mustard (continued)**

Common name	Pathogen or cause
Rai mosaic	Rai mosaic virus
Turnip mosaic	Turnip mosaic virus
White rust	<i>Albugo candida</i> (Pers.) Kunze ( <i>Peronospora</i> sp. commonly present in staghead phase)
Wirestem	<i>Rhizoctonia solani</i> Kühn
Xanthomonas leaf spot	<i>Xanthomonas campestris</i> pv. <i>armoraciae</i> (McCulloch) Dye
Yellows	<i>Fusarium oxysporum</i> Schlechtend.:Fr.

**Rapeseed (*Brassica rapa* L. (= *B. campestris* L.) and *B. napus* L.)**

**P. D. Kharbanda, S. F. Hwang, H. A. McCartney, C. J. Rawlinson, L. R. Saha, and P. H. Williams, Primary Collators**

Common name	Pathogen or cause
Alternaria black spot	<i>Alternaria brassicae</i> (Berk.) Sacc. <i>A. brassicicola</i> (Schwein.) Wiltshire <i>A. raphani</i> Groves & Skolko
Anthraxnose	<i>Colletotrichum higginsianum</i> Sacc. in Higgins
Autogenic necrosis	Genetic disorder
Bacterial black rot	<i>Xanthomonas campestris</i> pv. <i>campestris</i> (Pammel) Dowson
Bacterial leaf rot*	<i>Pseudomonas syringae</i> pv. <i>maculicola</i> (McCulloch) Young et al
Bacterial soft rot	<i>Erwinia carotovora</i> (Jones) Bergey et al <i>Pseudomonas marginalis</i> pv. <i>marginalis</i> (Brown) Stevens
Black leg	<i>Leptosphaeria maculans</i> (Desmaz.) Ces. & De Not. (anamorph: <i>Phoma lingam</i> (Tode:Fr.) Desmaz.)
Black mold rot	<i>Rhizopus stolonifer</i> (Ehrenb.:Fr.) Vuill.
Black root	<i>Aphanomyces raphani</i> Kendrick
Black speck	Physiological
Cercospora leaf spot	<i>Cercospora brassicicola</i> Henn.
Clubroot	<i>Plasmodiophora brassicae</i> Woronin
Crown gall	<i>Agrobacterium tumefaciens</i> (Smith & Townsend) Conn
Damping-off	<i>Fusarium</i> spp. <i>Pythium</i> spp. <i>Rhizoctonia solani</i> Kühn (teleomorph: <i>Thanatephorus cucumeris</i> (A. B. Frank) Donk)
Downy mildew	<i>Peronospora parasitica</i> (Pers.:Fr.) Fr.
Fusarium wilt	<i>Fusarium oxysporum</i> Schlechtend.:Fr. f. sp. <i>conglutinans</i> <i>F. roseum</i> Link:Fr.*
Gray mold	<i>Botrytis cinerea</i> Pers.:Fr. (teleomorph: <i>Botryotinia fuckeliana</i> (de Bary) Whetzel)
Head rot	<i>Rhizoctonia solani</i> Kühn
Leaf spot*	<i>Alternaria alternata</i> (Fr.:Fr.) Keissl. <i>Ascochyta</i> spp.
Light leaf spot	<i>Pyrenopeziza brassicae</i> Sutton & Rawlinson in Rawlinson et al (anamorph: <i>Cylindrosporium concentricum</i> Grev.)
Nematodes, parasitic	
Cyst nematodes	<i>Heterodera cruciferae</i> Franklin <i>H. schachtii</i> Schmidt
Lesion nematodes	<i>Pratylenchus</i> spp. <i>Pratylenchus pratensis</i> (de Man) Filipjev
Root-knot	<i>Meloidogyne</i> spp.
Pod drop*	<i>Alternaria alternata</i> (Fr.:Fr.) Keissl. <i>Cladosporium</i> sp.
Powdery mildew	<i>Erysiphe polygoni</i> DC. <i>E. cruciferarum</i> Opiz ex Junell.
Ring spot	<i>Mycosphaerella brassicicola</i> (Duby) Lindau in Engl. & Prantl (anamorph: <i>Asteromella brassica</i> (Chev.) Boerema & Van Kesteren)
Root rots	<i>Alternaria alternata</i> (Fr.:Fr.) Keissl. <i>Fusarium</i> spp.

continued

**Rapeseed (continued)**

Common name	Pathogen or cause
	<i>Macrophomina phaseolina</i> (Tassi) Goidanich
	<i>Phymatotrichopsis omnivora</i> (Duggar) Hennebert
	<i>Phytophthora megasperma</i> Drechs.
	<i>Pythium debaryanum</i> Auct. non R. Hesse
	<i>P. irregulare</i> Buisman
	<i>Rhizoctonia solani</i> Kühn
	<i>Sclerotium rolfsii</i> Sacc. (teleomorph: <i>Athelia rolfsii</i> (Curzi) Tu & Kimbrough)
Scab	<i>Streptomyces scabies</i> (Thaxter) Waksman & Henrici
	<i>Streptomyces</i> spp.
Sclerotinia stem rot	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary
Seed rot and seedling blight	<i>Alternaria</i> spp. <i>Fusarium</i> spp. <i>Gliocladium roseum</i> (Link) Bainier (teleomorph: <i>Nectria ochroleuca</i> (Schwein.) Berk.) <i>Pythium</i> spp. <i>Rhizoctonia solani</i> Kühn <i>Sclerotium rolfsii</i> Sacc.
Smut, root gall*	<i>Urocystis brassicae</i> Mundkur
Southern blight (leaf, root and seed rot)	<i>Sclerotium rolfsii</i> Sacc.
Sulfur deficiency	Sulfur deficiency
Tipburn	Calcium deficiency
Verticillium wilt	<i>Verticillium albo-atrum</i> Reinke & Berthier <i>V. dahliae</i> Kleb.
Virus and mycoplasmalike diseases	
Aster yellows	Mycoplasmalike organism
Cauliflower mosaic	Cauliflower mosaic virus
Cucumber mosaic*	Cucumber mosaic virus
Phyllody	Sesamum phyllody virus Mycoplasmalike organism (MLO)
Radish mosaic	Radish mosaic virus
Turnip crinkle*	Turnip crinkle virus
Turnip mosaic	Turnip mosaic virus
Yellows	Beet western yellows virus Broccoli necrotic yellows virus*
White blight*	<i>Rhizoctonia solani</i> Kühn
White leaf spot	<i>Pseudocercospora capsellae</i> (Ellis & Everh.) Deighton = <i>Cercospora brassicae</i> (Faitrey & Roum.) Hohn. <i>Albugo candida</i> (Pers.) Kunze = <i>A. cruciferarum</i> (DC.) S. F. Gray ( <i>Peronospora</i> sp. commonly present in staghead phase)
White rust	
Wirestem	<i>Rhizoctonia solani</i> Kühn
Xanthomonas leaf spot	<i>Xanthomonas campestris</i> pv. <i>armoraciae</i> (McCulloch) Dye
Yellows	<i>Fusarium oxysporum</i> Schlechtend.:Fr.

\*Not known to occur in the United States.

**Rice (*Oryza sativa* L.)**

**Clayton A. Hollier, Donald E. Groth, M. C. Rush, and Robert K. Webster, Primary Collators**

Common name	Pathogen or cause
Aggregate sheath spot	<i>Ceratobasidium oryzae-sativae</i> P. S. Gunnell & R. K. Webster (anamorph: <i>Rhizoctonia oryzae-sativae</i> (Sawada) Mordue)
Alkalinity or salt damage	Excessive salt concentration in soil or water

continued

**Rice (continued)**

Common name	Pathogen or cause
Bacterial leaf blight	<i>Xanthomonas campestris</i> pv. <i>oryzae</i> (Ishiyama) Dye
Black kernel	<i>Curvularia lunata</i> (Wakk.) Boedijn (teleomorph: <i>Cochliobolus lunatus</i> R. R. Nelson & Haasis)
Blast	<i>Pyricularia oryzae</i> Cavara
Brown spot	<i>Cochliobolus miyabeanus</i> (Ito & Kuribayashi) Drechs. ex Dastur (anamorph: <i>Bipolaris oryzae</i> (Breda de Haan) Shoemaker)
Bronzing	Zinc deficiency
Cold injury	Low temperatures
Crown sheath rot	<i>Gaeumannomyces graminis</i> (Sacc.) Arx & D. Olivier
Downy mildew	<i>Sclerophthora macrospora</i> (Sacc.) Thirumalachar et al.
False smut	<i>Ustilaginoidea virens</i> (Cooke) Takah.
Kernel smut	<i>Tilletia barclayana</i> (Bref.) Sacc. & Syd. in Sacc. = <i>Neovossia horrida</i> (Takah.) Padwick
Leaf smut	<i>Entyloma oryzae</i> Syd. & P. Syd.
Leaf scald	<i>Microdochium oryzae</i> (Hashioka & Yokogi) Samuels & I. C. Hallett = <i>Rhynchosporium oryzae</i> Hashioka & Yokogi
Narrow brown leaf spot	<i>Cercospora oryzae</i> Miyake (teleomorph: <i>Sphaerulina oryzina</i> K. Hara)
Panicle blight	Cause undetermined
Pecky rice (kernel spotting)	Feeding injury by rice stink bug and/or damage by many fungi including <i>Cochliobolus miyabeanus</i> (Ito & Kuribayashi) Drechs. ex Dastur, <i>Curvularia</i> spp., <i>Fusarium</i> spp., <i>Sarocladium oryzae</i> (Sawada) W. Gams & D. Hawksworth, <i>Microdochium oryzae</i> (Hashioka & Yokogi) Samuels & I. C. Hallett, bacteria and other fungi
Root-knot	<i>Meloidogyne</i> spp.
Root rots	<i>Fusarium</i> spp. <i>Pythium</i> spp. <i>P. dissotocum</i> Drechs. <i>P. spinosum</i> Sawada <i>Pyricularia oryzae</i> Cavara
Rotten neck (see blast)	
Seedling blight	<i>Cochliobolus miyabeanus</i> (Ito & Kuribayashi) Drechs. ex Dastur, <i>Curvularia</i> spp., <i>Fusarium</i> spp., <i>Rhizoctonia solani</i> Kühn, <i>Sclerotium rolfsii</i> Sacc., and other pathogenic fungi
Sheath blight	<i>Thanatephorus cucumeris</i> (A. B. Frank) Donk (anamorph: <i>Rhizoctonia solani</i> Kühn)
Sheath rot	<i>Sarocladium oryzae</i> (Sawada) W. Gams & D. Hawksworth = <i>Acrocyliindrium oryzae</i> Sawada
Sheath spot	<i>Rhizoctonia oryzae</i> Ryker & Gooch
Stackburn (Alternaria leaf spot)	<i>Alternaria padwickii</i> (Ganguly) M. B. Ellis
Stem rot	<i>Magnaporthe salvinii</i> (Cattaneo) R. Krause & R. K. Webster (synanamorphs: <i>Sclerotium oryzae</i> Cattaneo, <i>Nakataea sigmoidae</i> (Cavara) K. Hara)
Straighthead	Arsenic induced, unknown physiological disorder
Water-mold (seed-rot & seedling disease)	<i>Achlya conspicua</i> Coker <i>A. klebsiana</i> Pieters <i>Fusarium</i> spp. <i>Pythium</i> spp. <i>P. dissotocum</i> Drechs. <i>P. spinosum</i> Sawada
White tip	<i>Aphelenchoides besseyi</i> Christie

## Salute to APS Sustaining Associates

This section is designed to help APS members understand more about APS Sustaining Associates. Information is supplied by company representatives. Each month features different companies. A complete listing appears in each issue of *Phytopathology*.

**ICI Americas Inc. Contact: James A. Frank, Western Research Center, P.O. Box 4023, Richmond, CA 94804; 510/231-1295.** ICI Americas Inc. is a wholly owned subsidiary of Imperial Chemical Industries, PLC, based in the United Kingdom. The Agricultural Products Company of ICI Americas was formed in 1970. ICI Agrochemicals (formerly Plant Protection Division) in England is a major supplier of commercial fungicides for cereals, vines, and top fruit throughout the world. In the United States, ICI Americas manufactures captan, vapam, and sulfur fungicides, which are sold through key distributors under local trade names. Insecticides, herbicides, rodenticides, and plant growth regulators are also manufactured and marketed. Research and development efforts are under way to identify and characterize proprietary fungicides suitable for the U.S. market in such crops as apples, grapes, potatoes, peanuts, pecans, and turf. ICI has three new regional technical centers with laboratory and field research facilities in North Carolina, Illinois, and Mississippi and a new greenhouse/laboratory complex at the Western Research Center in Richmond, California. In addition, ICI is involved in biocontrol and a biotechnology program in the United Kingdom and has a biotechnology facility in Iowa, site of ICI Seeds, Inc. ICI supports plant pathologists worldwide. Its goal is to achieve maximum plant health compatible with sustainable agroecosystems.

**Illinois Crop Improvement Association. Contact: James R. Shearl, 3105 Research Road, P.O. Box 9013, Champaign, IL 61826-9013; 217/359-4053, fax: 217/359-4075.** The Illinois Crop Improvement Association (ICIA) was formed in 1922 as a seed certification agency for the state of Illinois. Through the certification process, which includes field inspection, seed sampling, lab testing, and tagging, the seed is backed by the ICIA's guarantee of quality. Over the years, ICIA has become

much more than a certification agency. The association now has a quality assurance program, an identity preserved grain lab (IPG), and a winter farm in Puerto Rico. The quality assurance program provides a uniform and unbiased quality control program for crop seeds merchandised as varieties, blends, or brands. The IPG lab is a seed testing lab designed to test grain for quality traits, such as protein and oil percentage. The winter farm project began in 1986 and since that time has doubled in size each year. The company now offers growouts, production of foundation inbreds, and single crosses and corn nursery.

**Illinois Foundation Seeds, Inc. Contact: Arden Howey, P.O. Box 722, Champaign, IL 61824; 217/485-6420.** Illinois Foundation Seeds, Inc., markets a diverse array of seedstocks throughout the world. Development and testing of proprietary yellow and white corn inbreds and soybean cultivars involves 60 trained personnel located across the U.S. corn belt. In addition, a highly qualified staff ensures production of top-quality foundation seedstocks for distribution to the seed trade.

**ISK Biotech Corporation. Contact: Dr. Gary L. Eilrich, 5966 Heisley Road, Mentor, OH 44061-8000; 216/357-4145.** ISK Biotech Corporation, with headquarters in Mentor, Ohio, serves two world business areas: The Americas and Europe/Middle East/Africa. ISK Biotech brings to the world of agricultural chemicals advanced product development, state-of-the-art manufacturing facilities, and sophisticated marketing techniques to serve a growing global market. These basic capabilities have resulted in a line of superior weed and disease control products like Bravo and Daconil 2787 fungicides that significantly improve the health of turfgrass and ornamental plantings and increase the quality and yields of such crops as peanuts, bananas, wheat, stone fruit, and vegetables. Bravo and Daconil 2787 are supported by a complete toxicology database and extensive residue studies that demonstrate low dietary and worker exposure. The product meets the negligible risk standard proposed by the National Academy of Sciences. ISK Biotech is uniquely positioned to respond to promising new opportunities.