State Regulation of *Ribes* to Control White Pine Blister Rust

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SUMMARY. Recent interest in expanding commercial currant and gooseberry (*Ribes* L.) plantings in the United States has put pressure on the states with *Ribes* restrictions to review their regulations. A meeting on 9 January 1998 initiated discussion between the state agriculture regulatory agencies, forest pathologists, and horticulturists. Since then a white pine blister rust (WPBR), *Cronartium ribicola* J.C. Fischer) World Wide Web (Web) site (McKay, 1998) and list serve have been activated to facilitate communication. Vermont is a state that has no regulations on the books at this time. Connecticut and New York also have mentioned that infection rates are low. Maine retains a *Ribes* reduction program, and Massachusetts is strictly enforcing their regulations. The following summarizes the general consensus among the majority of regulating states: 1) It is desirable to find a way for both white pines (*Pinus* L.) and commercial *Ribes* plantings to coexist. 2) More research is needed to survey existing *Ribes* and pines, the potential impact of commercial plantings versus the impact of existing *Ribes*, and the potential impact of escape / volunteer seedlings from immune *Ribes* cultivars. 3) There is interest in permitting immune *Ribes* cultivars to be planted. 4) There is interest in having consistency in regulations from state to state.

Globalization of the processed and fresh fruit market has placed pressure on U.S. growers to seek crop alternatives and to diversify their businesses. *Ribes* crops are one choice of interest since they are not widely cultivated in the US at this time. Until now many producers have focused on local markets and are growing a few hundred plants to satisfy local demand. A few producers have successfully expanded to plantings of 2 ha (4.9 acres) or more, and have interest in making further increases.

Some state regulators have reported an increase in inquiries related to *Ribes* and complaints from growers that the regulations might be outdated. Typical questions and comments included the following. 1) We have heard that white pine weevils (*Pissodes strobi* Peck) cause more economic damage than WPBR. 2) There are so many wild *Ribes* in the forest already that a commercial planting would not make a significant difference in the incidence of disease. 3) The rust seems to be spreading in the Western North America, but may be reaching a naturalization in Eastern North America. 4) Use a planting buffer of over 100 m (328 ft) between commercial *Ribes* plantings and pines. 5) The rust can be controlled by pruning of pines. 6) The rust can be controlled by resistant pines and immune *Ribes* cultivars. Cooperative extension offices have received similar inquiries as well as requests for technical information. This led to a literature search and polling of foresters, horticulturists, pathologists, and regulators to see if there was any consensus regarding the threat of *Ribes* to pines because of their role as an intermediate host to WPBR.

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Table 1. The present restriction and prohibition of the genus, *Ribes*

State	Ribes prohibited	Black currants prohibited	Red currants and gooseberries permitted	State permits required	White pine blister rust immune varieties permitted?	Review of regulations ongoing
Delaware	Yes	Yes, in part ^z	Yes, in part	yes	Yes, tentatively	Yes
Maine		Yes, in part				
Massachusetts		Yes	Yes, in part	Yes		
Michigan		Yes, in part	Yes, in part	Yes, tentatively	Yes	
Montana	Yes	Yes	Yes			
New Hampshire					Yes	
New Jersey		Yes	Yes, in part			
New York		Yes, in part	Yes, in part			Yes
North Carolina	Yes					
Ohio	Yes	Yes	Yes		Yes	
Pennsylvania		Yes, in part	Yes, in part			
Rhode Island				Yes		
South Carolina		Yes, in part	Yes, in part			
Virginia		Yes				
West Virginia		Yes	Yes, in part			

^zIn part refers to the states permitting cultivation or prohibiting cultivation in specific counties or regions.

Table 2. Personnel responsible for state agricultural regulations of white pine blister rust.

State	State Agriculture Department Contact
Delaware	Randy Ciurlino Senior Entomologist Delaware Department of Agriculture 2320 S. DuPont Highway Dover, DE 19901-5515 (302) 739-4811 randy@smtp.dda.state.de.us
Maine	Ann Gibbs State Horticulturalist Maine Department of Agriculture 28 State House Station Augusta, ME 04333 (207) 287-3891 ann.gibbs@state.me.us
Massachusetts	Phyllis Michalewich Plant Pests Massachusetts Department of Food and Agriculture 100 Cambridge Street Boston, MA 02202 (617) 626-1801 pmichalewich@state.ma.us
Michigan	Gary King Plant Industry Section Manager Michigan Department of Agriculture P.O. Box 30017 Lansing, MI 48909 (517) 373- 9747 kingg1@state.mi.us
Montana	David M. Taylor Montana Department of Agriculture Agricultural Sciences Division P.O. Box 200201 Helena, MT 59620-0201 (406) 444-3730 dtaylor@mt.gov

The varied and inconsistent responses to the investigation led to a meeting on 9 January 1998 to get representatives from all the stakeholders groups around a table to discuss the issue, to update the group on what knowledge we have, what is being researched, and what is lacking.

The consensus of the group was that they would like to see both pines and *Ribes* continue development as commercial crops. *Ribes* regulated states varied in their status and interest in changing regulations as well as their desire for more definitive research data. Also the situation with WPBR in the eastern North America versus western North America is generally recognized as different. Following is a summary of the points in question that need research before regulators would feel comfortable changing restrictions: 1) A survey of wild *Ribes* and pines is necessary to document the extent of WPBR, and the susceptibility of plants in the wild. 2) How long can immune *Ribes* cultivars be expected to remain immune, and what effect if any will their escape into the wild have on the rust's evolution? 3) Has naturalization of WPBR occurred in Eastern North America? 4) How different are the eastern North American and western North American races of rust, and is there a danger of them penetrating outside their home areas? Are immune

Table 2. Continued.

State	State Agriculture Department Contact
New Hampshire	Tom Durkis New Hampshire Department of Agriculture State Lab Building 6 Hazen Drive Concord, NH 03301 (603) 271-2561
New Jersey	Carl Schultze Jr. New Jersey Department of Agriculture Division of Plant Industry P.O. Box 330 Trenton, NJ 08625-0330 (609) 292-5442 agpschu@ag.state.nj.us
New York	Mike Birmingham NYS DEC Bureau of Forest Resources 50 Wolfe Road, Room 424 Albany, NY 12233-4253 (518) 457-7370 mjbirmin@gw.dec.state.ny.us
North Carolina	Suzanne Spencer Plant Pathologist North Carolina Department of Agriculture P.O. Box 27647 Raleigh, NC 27611 (919) 733-0461 suzanne.spencer@ncmail.net
Ohio	David Madison Ohio Department of Agriculture 8995 East Main Street Reynoldsberg, OH 43068-3399 (614) 728-6404 madison@odant.agri.state.oh.us
Pennsylvania	Nancy S. H. Richwine Plant Pathologist Supervisor Pennsylvania Department of Agriculture 2301 North Cameron Street Harrisburg, PA 17140-9408 (717) 772-5223 Nrichwine@pda005.pda.state.pa.us
Rhode Island	Daniel Lawton DEM Agriculture 235 Promenade Street Providence, RI 02908-5734 (401) 222-2781 dlawton@doa.state.ri.us
South Carolina	H.D. Jackson Plant Industry South Carolina Department of Agriculture 511 Westinghouse Road Pendleton, SC 29670 (864) 646-2131 hjcksn@clemson.edu
Virginia	Phillip Eggborn Virginia Department of Agriculture P.O. Box 1163 Richmond, VA 23218 (804) 786-3515 vdacsopp@richmond.infi.net
West Virginia	Gary Gibson West Virginia Department of Agriculture Plant Industries Division 1900 Kanawha Boulevard, East Charleston, WV 25305-0191 (304) 558-2212 gibsong@wvlc.wvnet.edu

Ribes immune to both rust races of WPBR?

As mentioned before, the regulated states vary as to their intent to enforce or change regulations (Table 1, 2). Most states have taken a wait-and-see approach, wanting to have more data formally presented by pathologists and ecologists before changing regulations. Following are some examples of state approaches. Maine strongly believes that their regulation is necessary, and they continue a *Ribes* reduction program. Vermont has not renewed any regulation, and allows unrestricted *Ribes* cultivation. New Hampshire is allowing cultivation of WPBR immune cultivars. Most states restricting *Ribes* cultivation would like to update their regulations based on scientific data that answers questions they have listed. The states would like to see their regulations be consistent, and appropriate for the good health of pine and *Ribes* plantings. There is interest in developing a list of permissible WPBR immune *Ribes* cultivars to be used by states that choose to maintain restrictions.

Literature cited

McKay, S. 1998. White pine blister rust (WPBR) information page. 1 Sept. 1999. <www.cce.cornell.edu/Columbia/smckay/wpbr.html>.