



CRADA and Licensing Opportunity: Biocontrol of *Cercospora* Leaf Spot in Sugar Beet

Cooperative Research and Development Agreements (CRADA) are appropriate for commercial firms seeking to further develop and commercialize an ARS invention, merge ARS technology with their own technology, or jointly discover and develop new technology. **CRADAs are unique in providing the cooperator the right to negotiate an exclusive license to inventions discovered under the agreement.** They also give extended confidentiality for information generated under the agreement. Under a CRADA, ARS scientists collaborate with private firms to help commercialize the technologies developed.

The mission of the Northern Plains Agricultural Research Laboratory in Sidney, MT is to develop and implement ecologically-based strategies, technologies, and products for the management of crops and rangeland in sustainable agricultural and natural resource systems. Emphasis is on soil and water stewardship and the biological and cultural management of insects, pathogens, and weeds within production systems that enhance profitability and environmental quality.
www.sidney.ars.usda.gov

Cercospora leaf spot, caused by the fungus *Cercospora beticola*, is the most serious leaf disease of sugar beet. It is prevalent wherever sugar beet is grown and is responsible for millions of dollars in lost production. For example, in 1998, growers in North Dakota and Minnesota suffered losses totaling approximately \$113 million due to *Cercospora* leaf spot.



Sugar beet leaves infected with *Cercospora*

Researchers at the Northern Plains Agricultural Research Laboratory in Sidney, MT have discovered both enzymatic and biological agents that may help control this important disease. The commercially available enzyme inactivates cercosporin, the toxin responsible for cell damage. The fungal agents control the growth of *Cercospora beticola* in the soil, preventing spread of the disease to future crops. The combination of both the fungi and enzyme shows promise as an effective biocontrol strategy for *Cercospora* leaf spot. USDA-ARS has applied for a patent for this technology.

The USDA-ARS is currently looking for an industrial partner to help in the commercialization of this innovative biocontrol system. The ideal partner would have expertise in manufacturing enzymes and biocontrol agents, the ability to contribute both intellectually and financially to the project, and be interested in licensing and marketing the technology.



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