

**U.S. Wheat and Barley Scab Initiative
Annual Progress Report
September 15, 1999**

Cover Page

PI:	Perry Ng
Institution:	Michigan State University
Address:	Dept. of Food Science and Human Nutrition 135 GM Trout FSHN Bldg. East Lansing, MI 48824
Email:	ngp@pilot.msu.edu
Phone:	517-353-9605
Fax:	517-353-8963
Year:	FY1999
Grant Number:	59-0790-9-078
Grant Title:	Fusarium Head Blight Research
Amount Granted:	\$16,260.00

Project

Program Area	Objective	Requested Amount
Food Safety, Toxicology, Utilization	Investigate utilization of contaminated grain.	\$16,666
	Requested Total	\$16,666¹

Principle Investigator

Date

¹ Note: The Requested Total and the Amount Granted are not equal.

Project 1: Investigate utilization of contaminated grain.

1. What major problem or issue is being resolved and how are you resolving it?

Utilization of highly DON-contaminated wheat grain is being investigated. Contaminated grains (7.3 ppm of DON) were soaked in sodium bisulfite solutions (a series of concentrations) and the soaked (wetted) grains were extruded via an extrusion process to produce puffed products. The DON level in the puffed products was reduced to as low as 0.3 ppm via the soaking and extrusion processes.

2. Please provide a comparison of the actual accomplishments with the objectives established.

In the original proposal, Phases 1, 2, and 3 were anticipated to be completed by this point. In actuality, Phases 2, 3, and part of Phase 6 were completed.

3. What were the reasons established objectives were not met? If applicable.

Due to the late start of the funding, i.e., the limited time frame, Phase 1 was not included in this funding period. However, it was deemed appropriate to initiate Phase 6 to determine the potential of the proposed approach.

4. What were the most significant accomplishments this past year?

The proposed approach (utilization of highly DON-contaminated wheat via soaking and extrusion processing) appears viable in terms of reducing DON levels, removing moisture and volatile chemicals of the soaking solution, and producing acceptable puffed products.

Year: 1999
PI: Perry Ng
Grant: 59-0790-9-078

Progress Report

Include below a list of the publications, presentations, peer reviewed articles, and non-peer reviewed articles written about your work that resulted from all of the projects included in the grant. Please reference each item using an accepted journal format. If you need more space, continue the list on the next page.

Accerbi, M., Rinaldi, V.E.A., and Ng, P.K.W. 1999. Utilization of highly deoxynivalenol-contaminated wheat via extrusion processing. *J. Food Prot.* (In press).