

Cluster 2 – Progress Report for the Cluster 2 Science Advisory Body

1. CLUSTER PROJECT DETAILS

Project number: J-000552 - CL03-Pulse-Activity T3.P23.V1

Name of Project: CL03-Pulse-Activity T3.P23.V1-Utilization of Yellow Pea, Lentil, and Faba Bean Fibre and Starch for Meat Product Applications

Project research period: 2013-2018

Period covered by this report: April-December, 2015

Principal investigator and research collaborators: Wanasundara, Janitha, Shand, P.J. , Tulbeck, M.

NON-CONFIDENTIAL ABSTRACT/SUMMARY

The overall objective of the project is to enhance fibre levels of meat products through incorporation of suitable pulse fibre materials. The project partners of this project are the University of Saskatchewan and AGT Foods in Saskatoon. AGT Foods provided commercially processed red lentil and yellow pea fibre samples. Outcomes of this project will benefit both the pulse industry (enhance utilization of low value processing co-products) and meat industry (improve healthy attributes of the composition). A graduate student at a M.Sc. level working through the research affiliate program of AAFC and co-supervised by project investigators carried out detailed physicochemical analyses and compositional analysis on fibre fractions from peas and lentils. The fibre fraction of yellow pea was mainly insoluble dietary fibre (74-83%), with approximately 5% soluble dietary fibre, while fibre fractions of lentils contained lower amounts of insoluble dietary fibre (38-48%). Heat treatment generally had minor effects on functionality. Physical, chemical, and functional attributes of heat treated pea, lentil, and faba bean HV pulse flours have also been completed. We are awaiting receipt of faba bean samples from the 2015 crop year and will carry out similar analyses shortly. Most of the supplies and equipment needed for analyses are in place and the project is progressing.