OAC Avatar Soybean

Executive Summary

ORIGIN AND BREEDING:

OAC Avatar was derived from the cross OAC 01-34 x S12-C2 made in 2003. (OAC 01-34 was derived from the cross OAC 96-11 x OAC 96-07). The crossed material was advanced by the Single Seed Descent technique until the F4 generation when a single plant was selected for maturity and agronomic traits in 2004. The seeds from this plant were harvested and maintained by pedigree selection until the F4:7 generation when approximately 25 plants were selected for morphological uniformity in 2007. Three plants from this group were selected to produce 3 F4:8 head row plots in 2008. From these 3 plots, about 40 single plants were selected in 2008 and from this group 20 plants were chosen to produce an F4:9 Pre-breeder Seed Increase plot in 2009. This Pre-breeder Seed Increase plot was rogued for uniformity, harvested and bulked in 2009 and was used to produce F4:10 Breeder Seed in 2010.

This line was tested as SECAN 08-24C in the 2008 2800HU Private Ontario Soybean Variety Trials, and in the 2009 and 2010 2800HU Public (Conventional and Food Grade) Ontario Soybean Variety Trials.

OAC Avatar was bred by THE UNIVERSITY OF GUELPH under the PLANTS PROGRAM of the ONTARIO MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS.

VARIETAL CHARACTERISTICS:

Plant Characteristics:

Growth Habit: Indeterminate
Plant Type: Medium, intermediate bushiness
Cotyledon Colour: Green following emergence, yellow at maturity
Hypocotyl Colour: Purple
Leaves: Medium green, intermediate length, width and texture
Terminal Leaflet Shape and Size: Ovate, medium
Pubescence Colour: **Light Tawny (amended on October 3rd, 2012)**
Flower Colour: Purple
Pod Colour: Brown
Plant Height: ~90cm
Lodging Resistance: Fair – 2.1~ (on scale from 1.0 (erect) to 5.0 (flat))
Disease Reaction:
Herbicide Reaction: **OAC Avatar** is a **Conventional** Soybean Variety:

- **Susceptible** to Glyphosate (Roundup)

Seed Characteristics:

Coat Colour: Dull yellow
Shape:
Hilum Colour: **Imperfect Yellow** (amended on October 3, 2012). Up to 8 Grey hilum variants /20,000 seeds (0.04%) and up to 16 Brown hilum variants/20,000 seeds (0.08%) may be present in Breeder and Select Seed; up to 16 Grey hilum variants/20,000 seeds (0.08%) and up to 32 Brown hilum variants/20,000 seeds (0.16%) may be present in **Foundation, Registered and Certified Seed**.
Micropyle Colour: Yellow
Size: ~20.0g/100 seeds
Oil Content: ~19.5%
Protein Content: ~41.8%

**Maturity**: ~2900 Crop Heat Units (Ontario)
PERFORMANCE:

Breeder Seed available: 100 to 200kg

MAINTENANCE OF BREEDER SEED: Department of Plant Agriculture, University of Guelph. Contact: Dr. Istvan Rajcan at irajcan@uoguelph.ca

SUPPORTED BY: The Ontario Oil and Protein Seed Crop Committee (OOPSCC).