

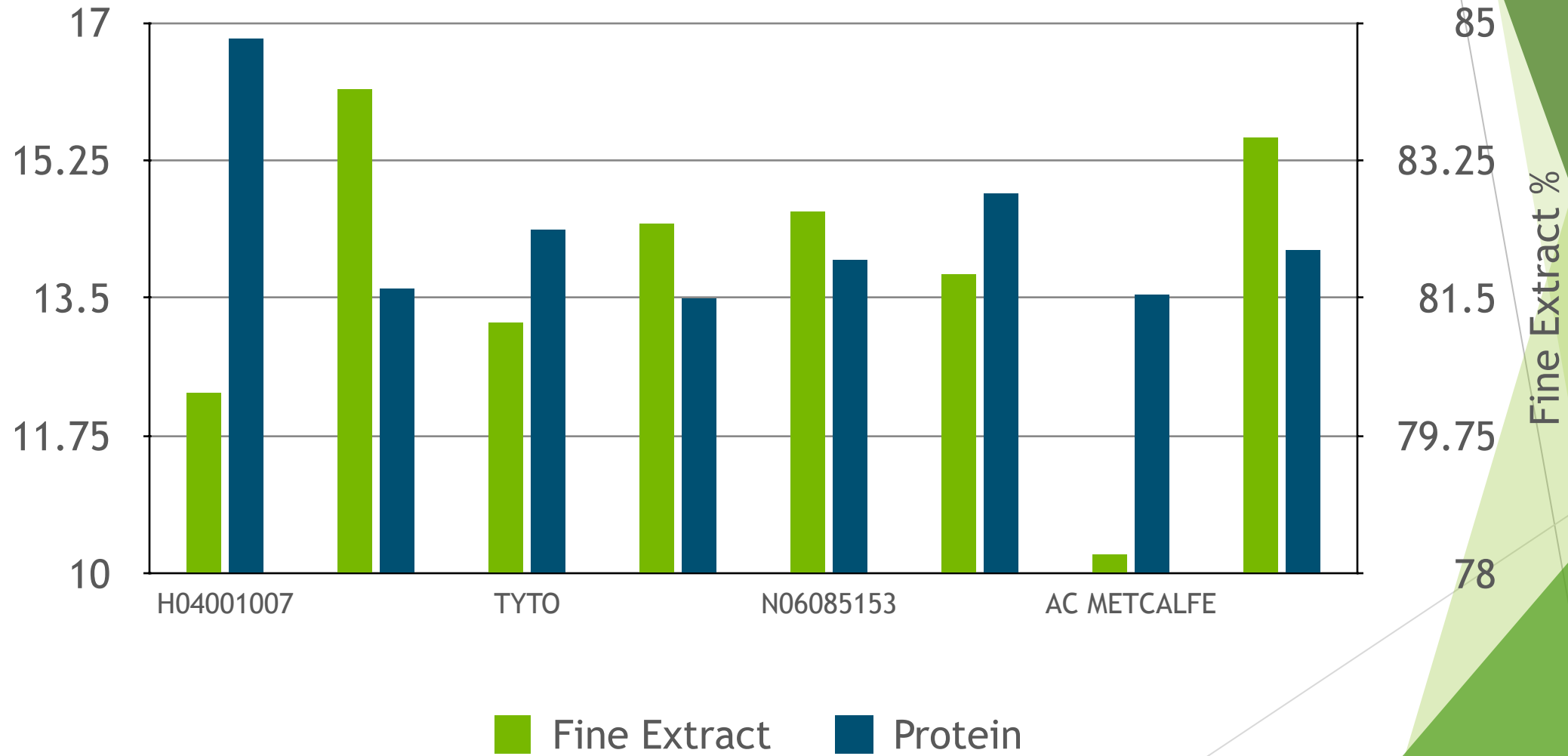
Barley Cluster Activity 16

FCDC Malting Barley

Two-row and Hulless

Hulless Barley for Malting

2014 Advanced FCDC Hulless lines and check varieties



NIRS malting quality calibration (2013 – 2014)

Constituent	<i>n</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>	<i>SEC</i>	<i>R</i>	<i>SECV</i>
Fine Extract (%)	96	77	88	83	2.3	0.61	0.93	0.86
Diastatic Power (° Plato)	96	51	170	105	22.7	14.9	0.57	16.0 7
Beta-glucan (ppm)	94	15	781	242	164.7	58.3	0.85	99.8
Friability (%)	96	19	86	41	14.7	4.79	0.89	6.53

SD - standard deviation; SEC - standard error of calibration; SECV - standard error of cross validation

Markers for Malting

- ▶ Genotyping Varieties and Lines for Malting Quality with Five SNP Markers:
 - ▶ B1SNP115, B1SNP233, and B1SNP347 Were Used to Determine Beta-Amylase (*Bmy-1*) Haplotypes (*Sd1* , *Sd2H* , *Sd2L*, and *Sd4*; Chiapparino et al., 2006),
 - ▶ SNPGARE for Putative GA Master Switch (Fechter et al., 2010), and
 - ▶ MESNP122ldi (Huang et al., 2014) for Limit Dextrinase Inhibitor

Training set

Varieties/ lines	B1SNP11 5	B1SNP233	B1SNP347	SNPGARE	MESNP122 ldi	Times tested
Harrington	1	1	1	1	1	5+
Haruno Nijo	2	2	1	1	1	5
Steptoe	2	2	1	2	1	5
<i>Schooner</i>	2	2	2	1	2	5

Canadian Varieties

Varieties/ lines	B1SNP1 45	B1SNP 222	B1SNP3 47	SNPGARE	MESNP1 221di	Times tested
AAC Synergy	1	na	1	1	1	3
Bentley	1	1	1	1	1	3
Busby	2	1	1	1	2	2
<i>CDC Copeland</i>	1	na	1	1	na	1
CDC Meredith	1	1	1	1	1	3
<i>Merit 57</i>	1	na	1	1	2	2

Thank you to our funding agencies

