

University of Manitoba IWG Breeding

July 6, 2017

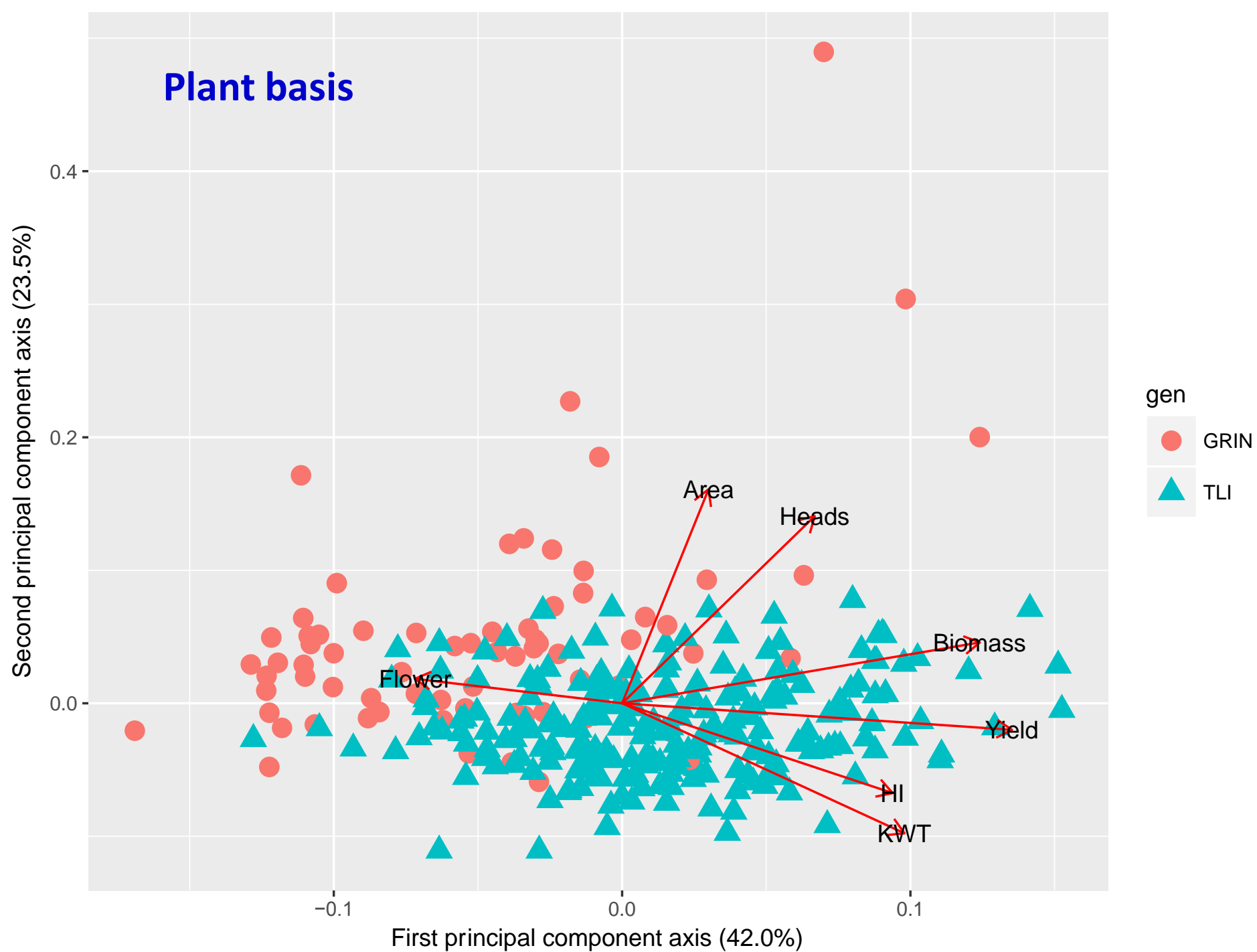
2017 Kernza / IWG Meeting

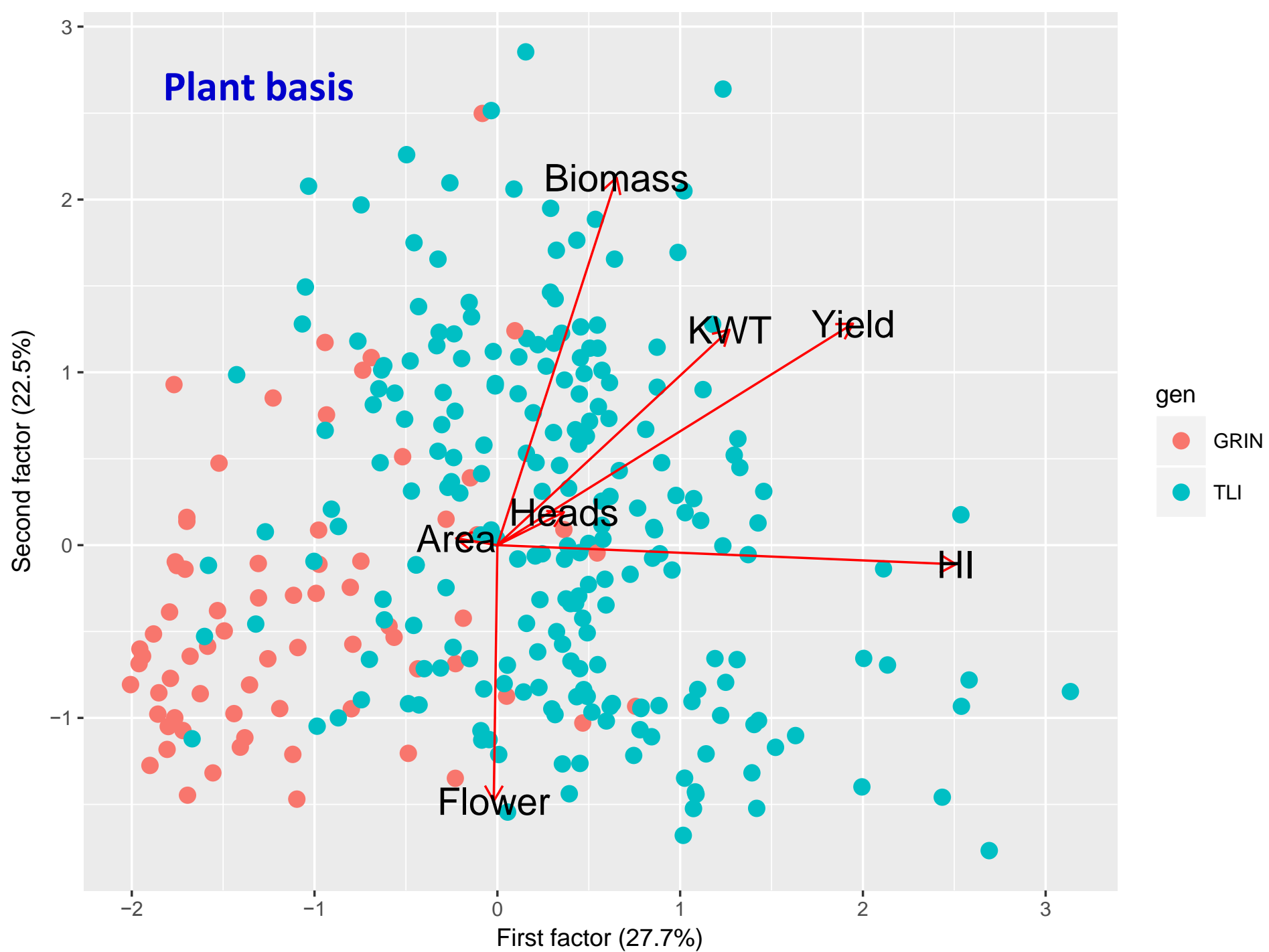
University of Minnesota, St. Paul Campus

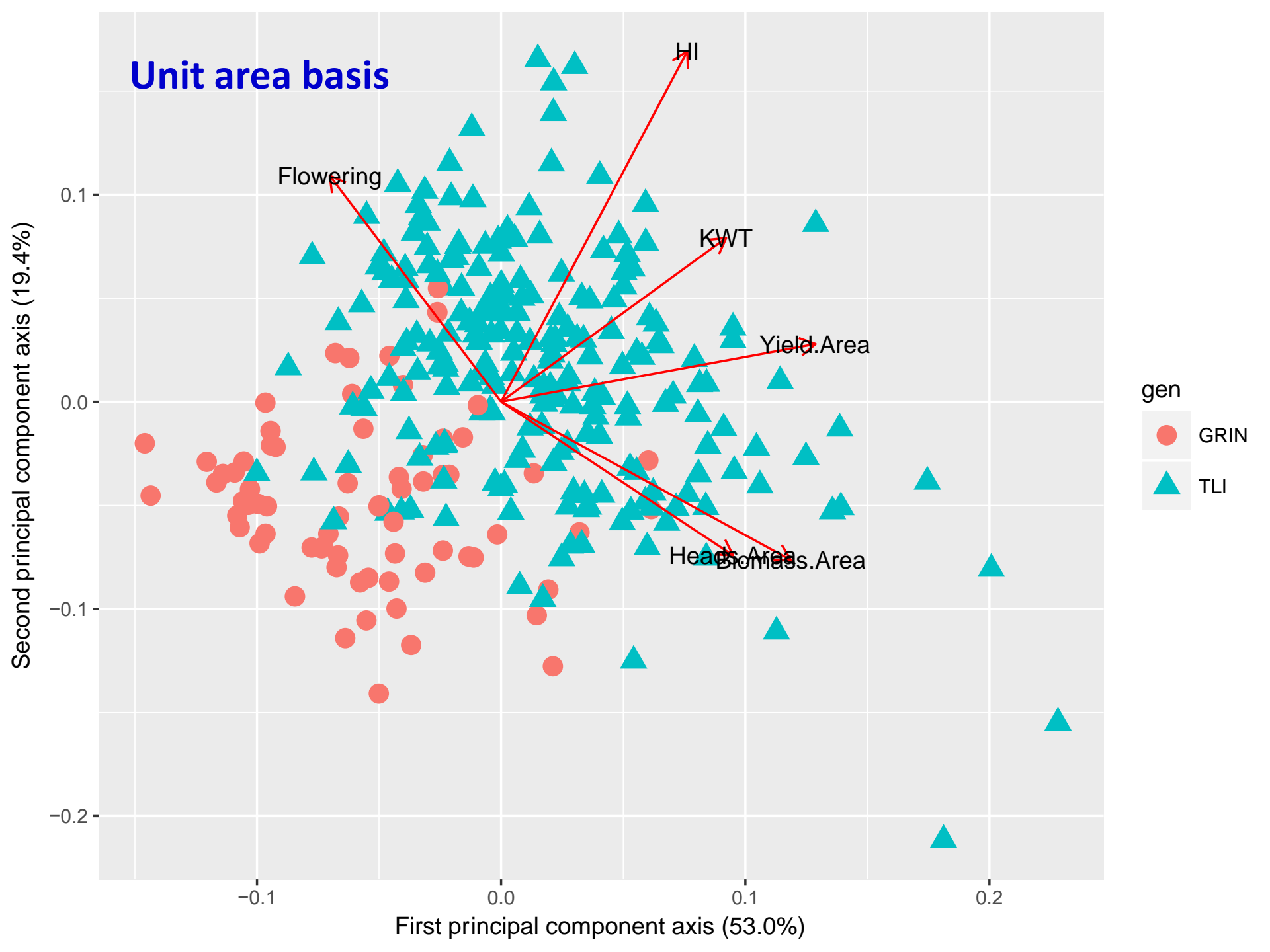
September 2016



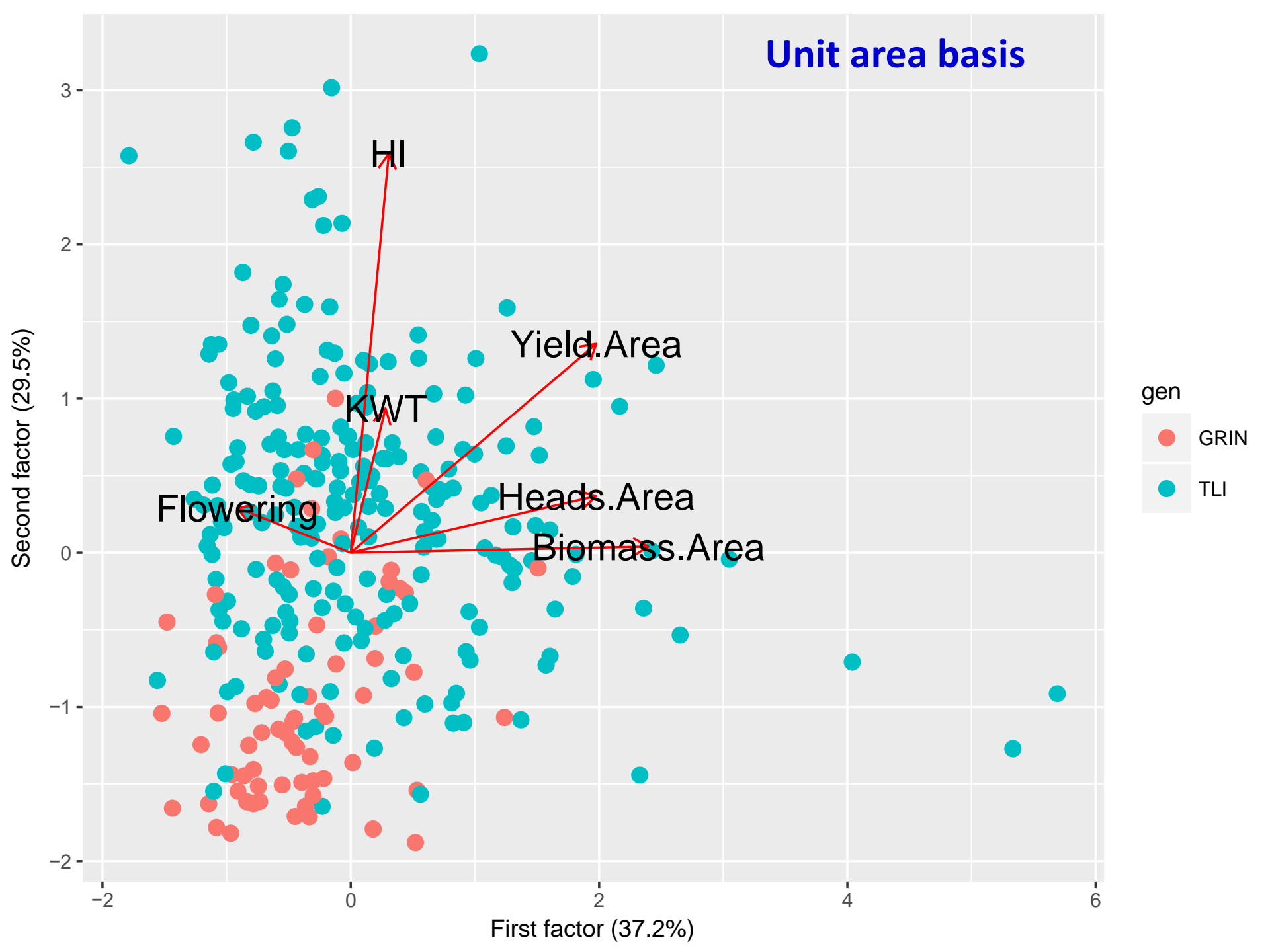
Plant basis

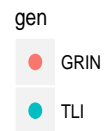
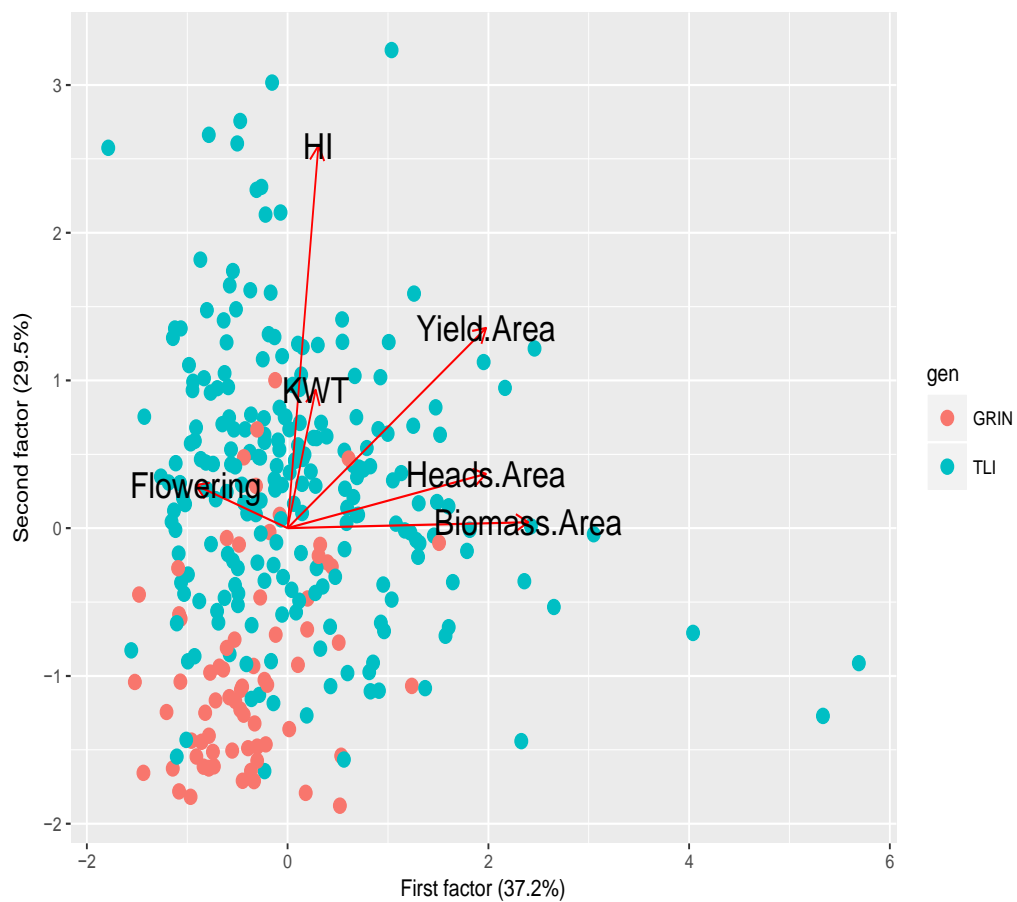
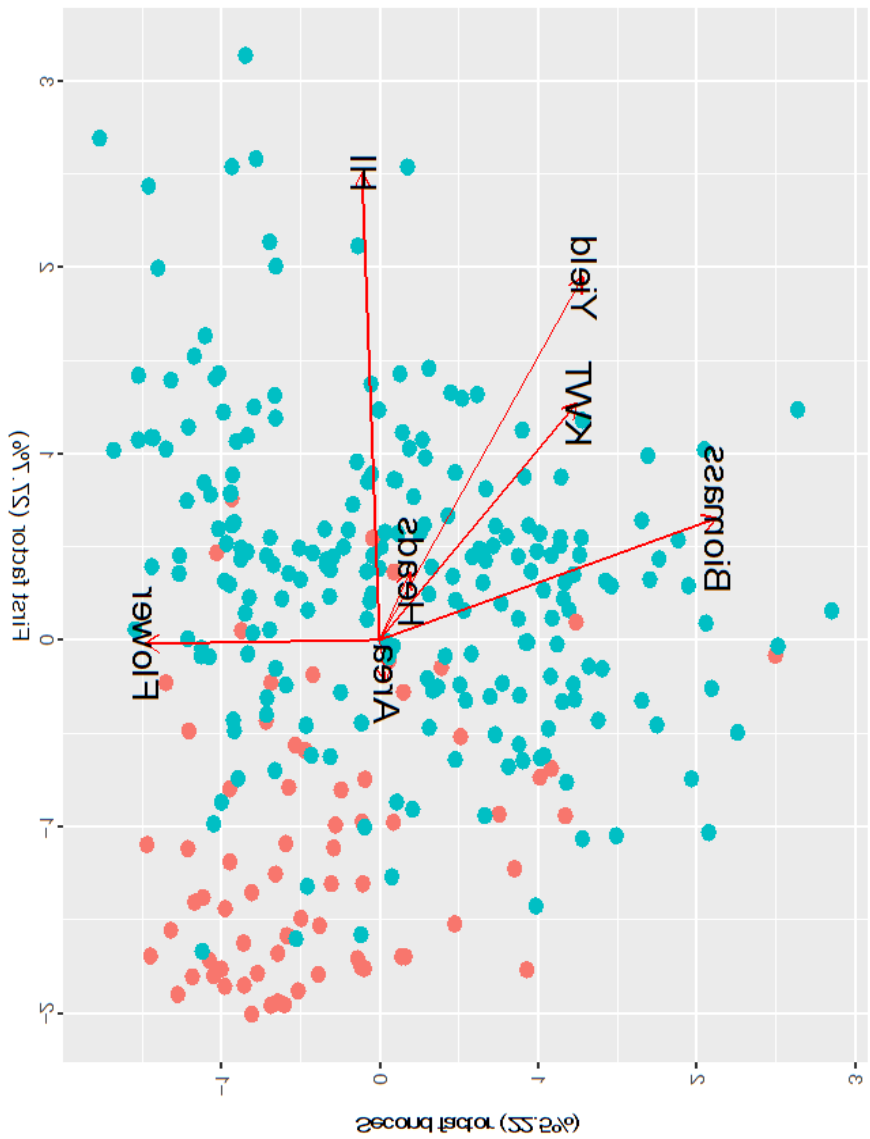




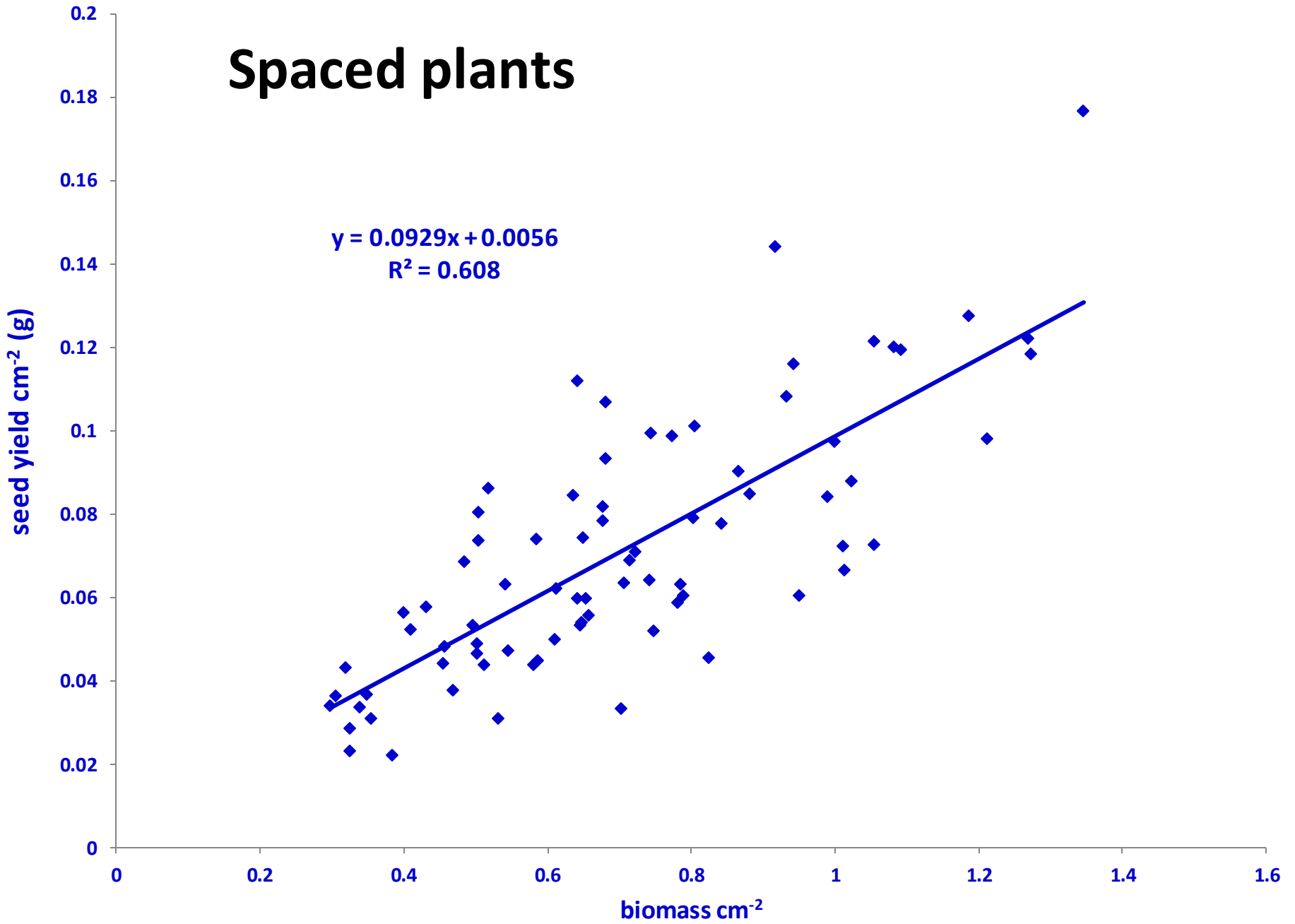


Unit area basis

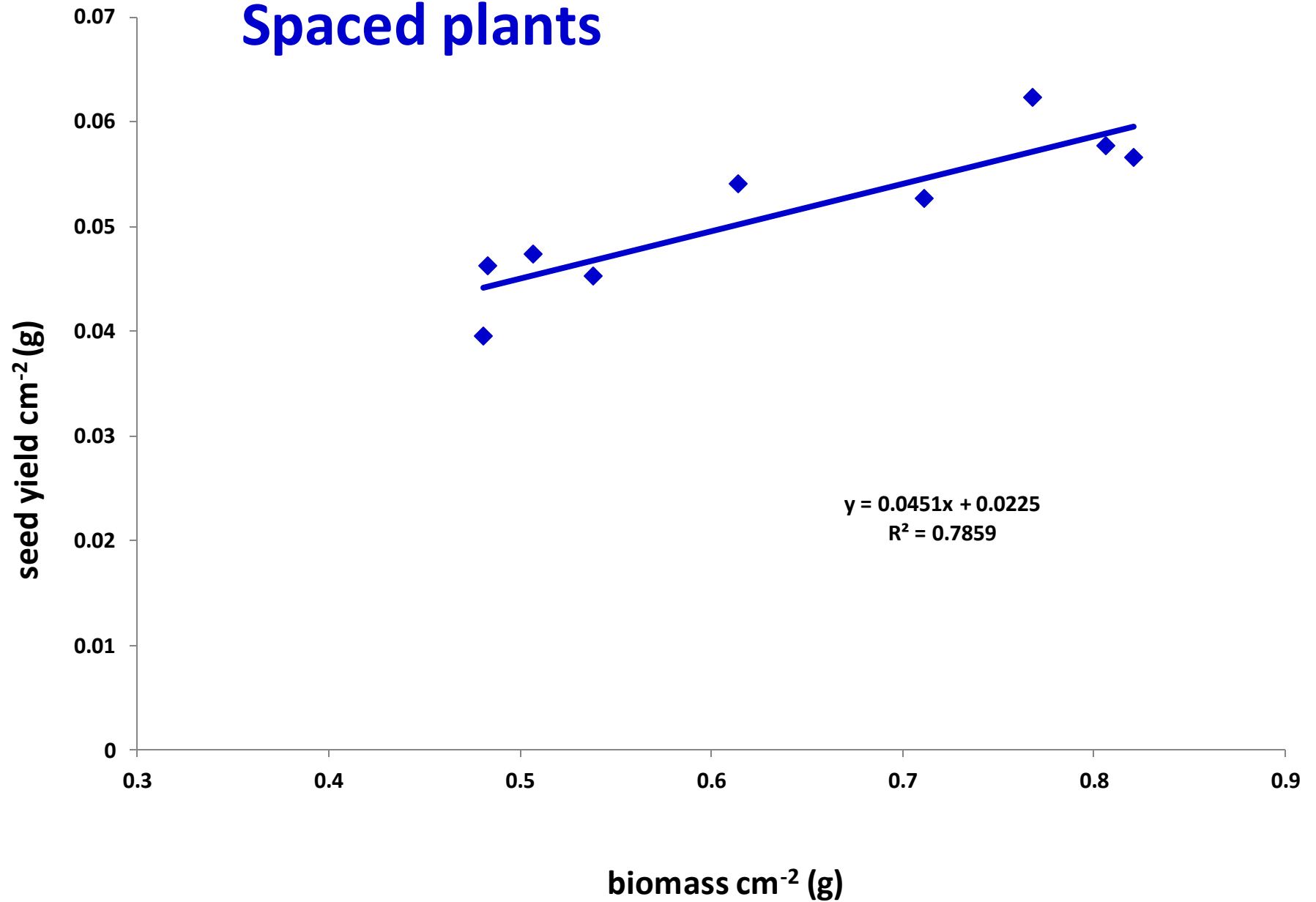


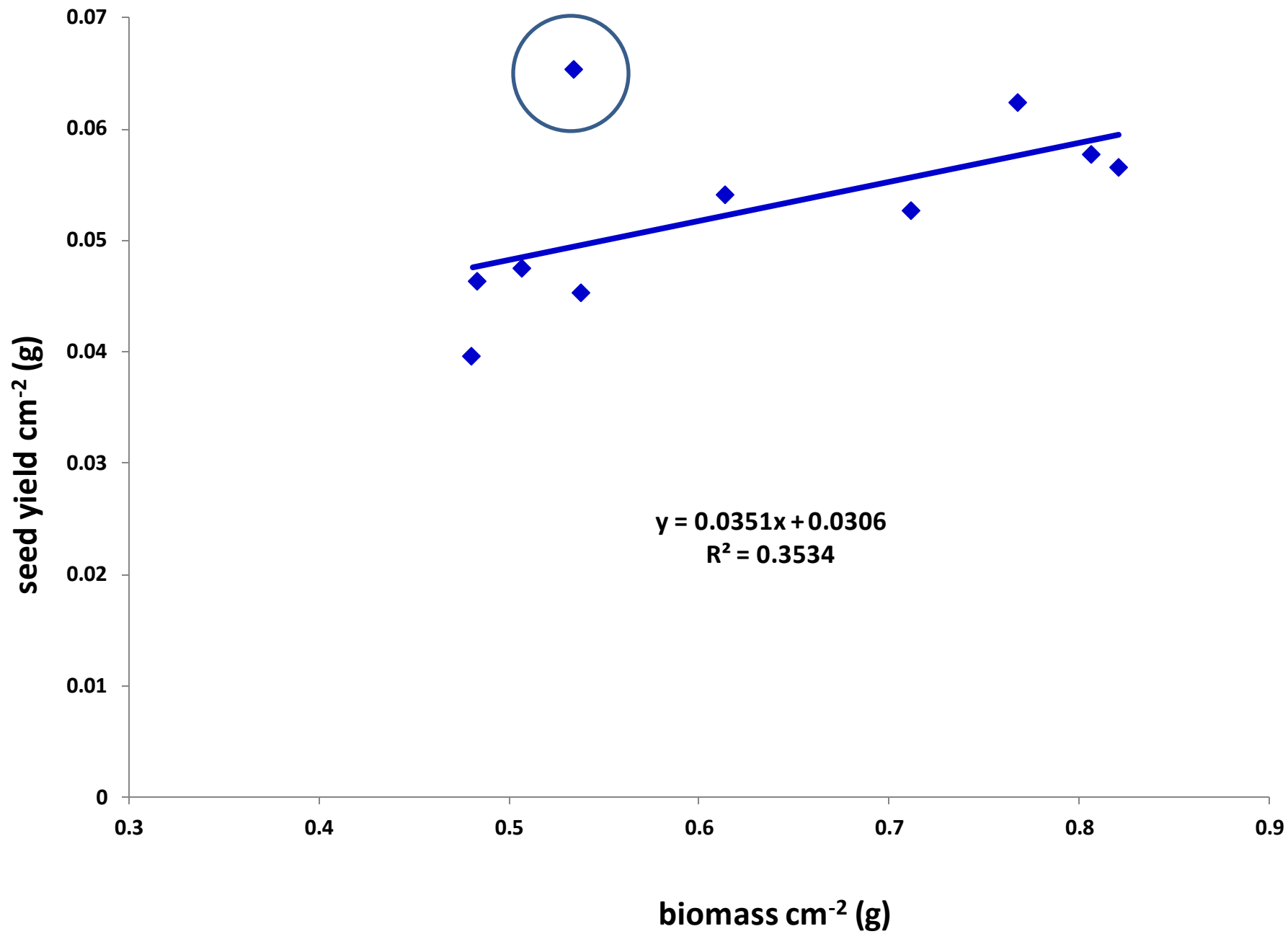


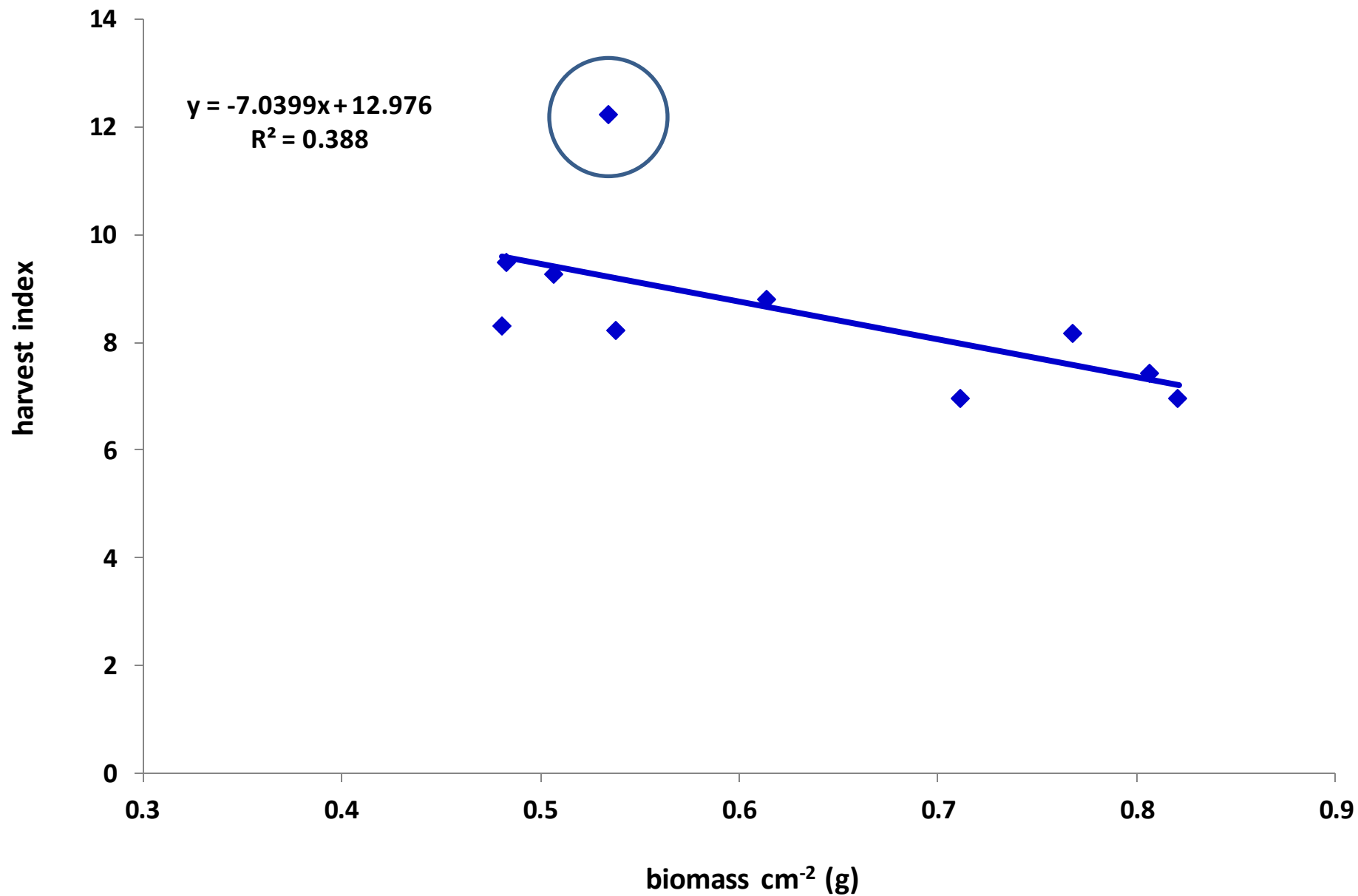
Spaced plants

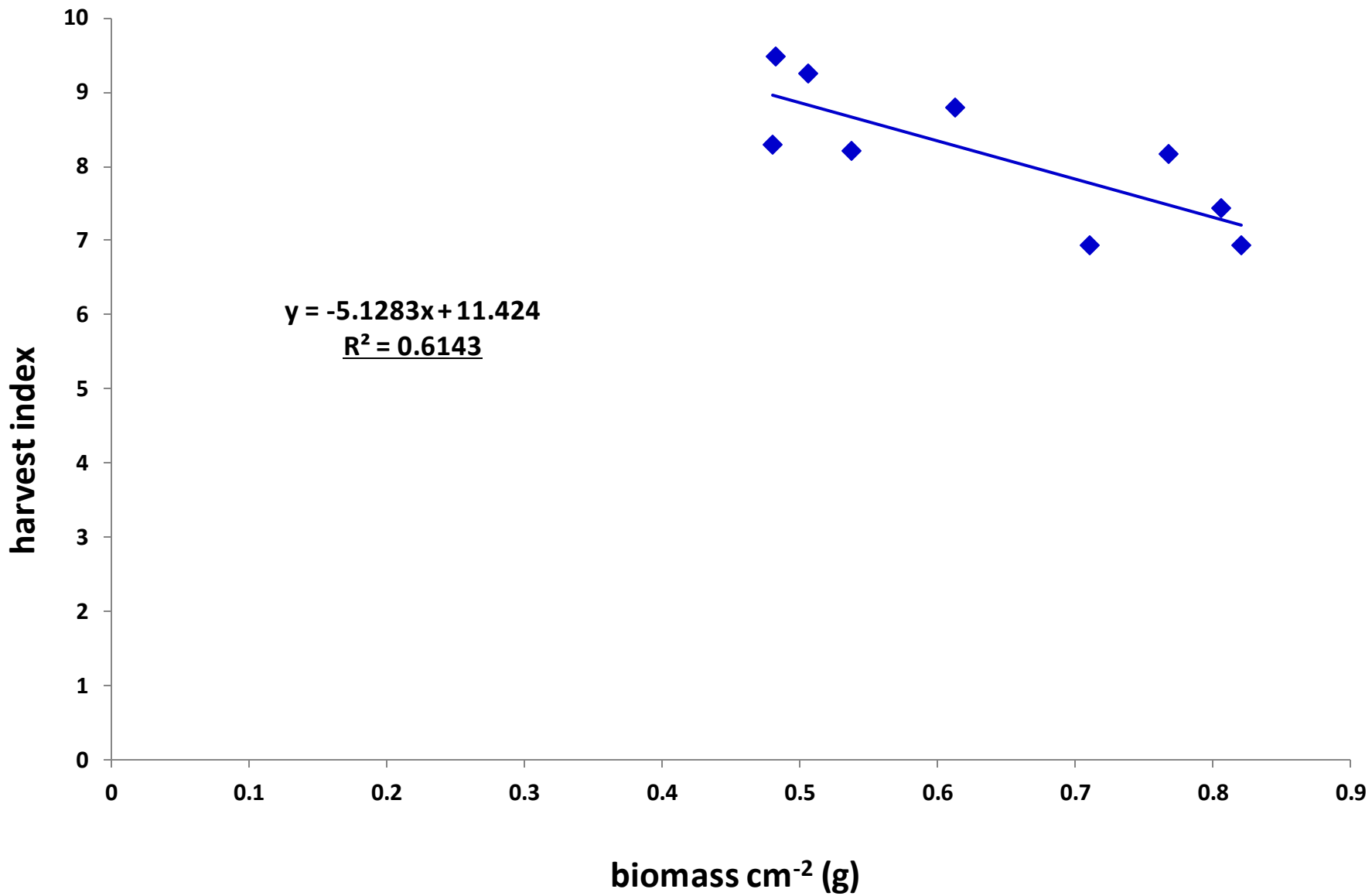


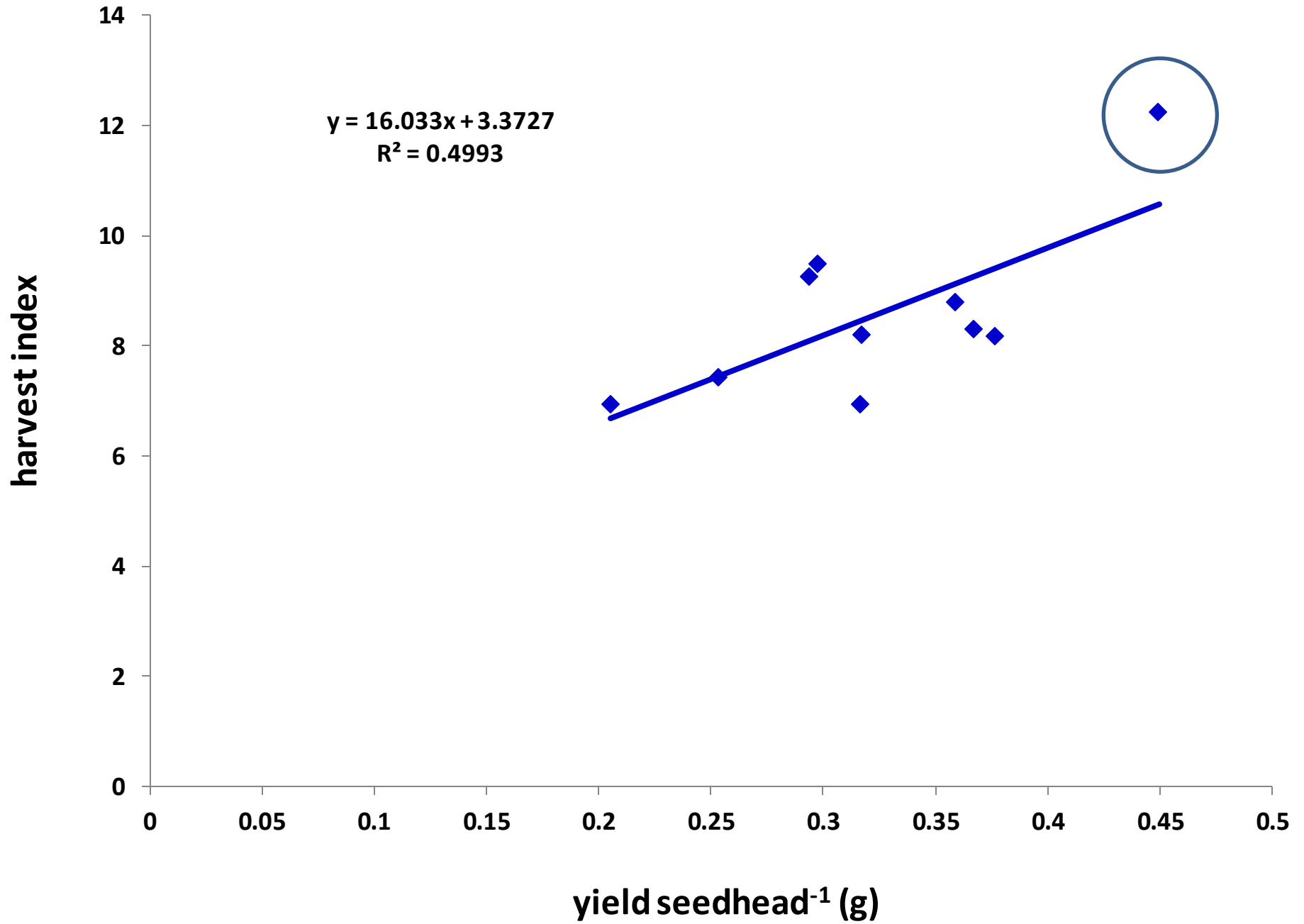
Spaced plants

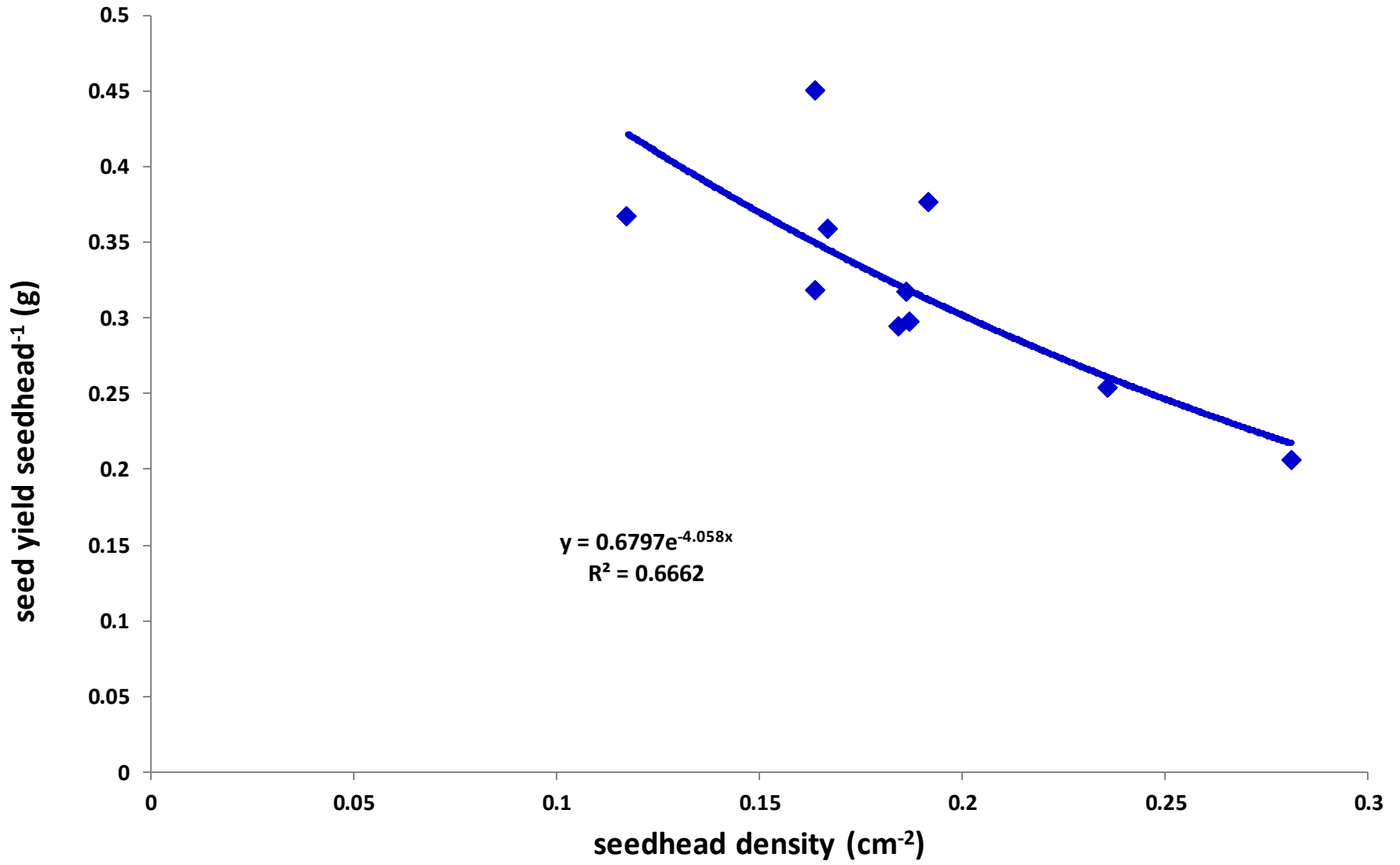












Row planting

◆ rep 1 ■ rep 2 ▲ rep 3 ● rep 4

rep 1
 $y = 489.41x - 5.9881$
 $R^2 = 0.4515$

rep 2
 $y = 450.02x + 3.6889$
 $R^2 = 0.3241$

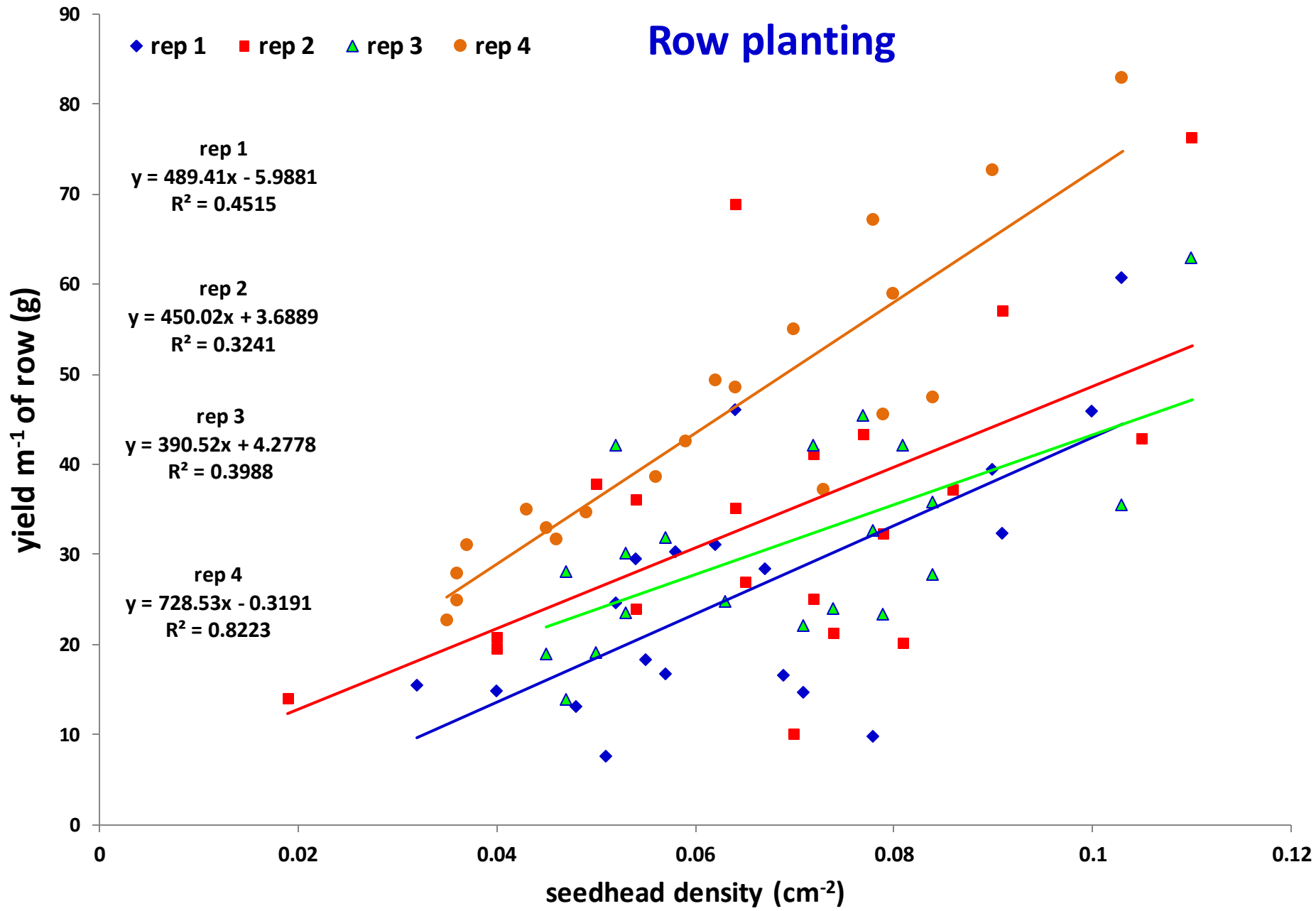
rep 3
 $y = 390.52x + 4.2778$
 $R^2 = 0.3988$

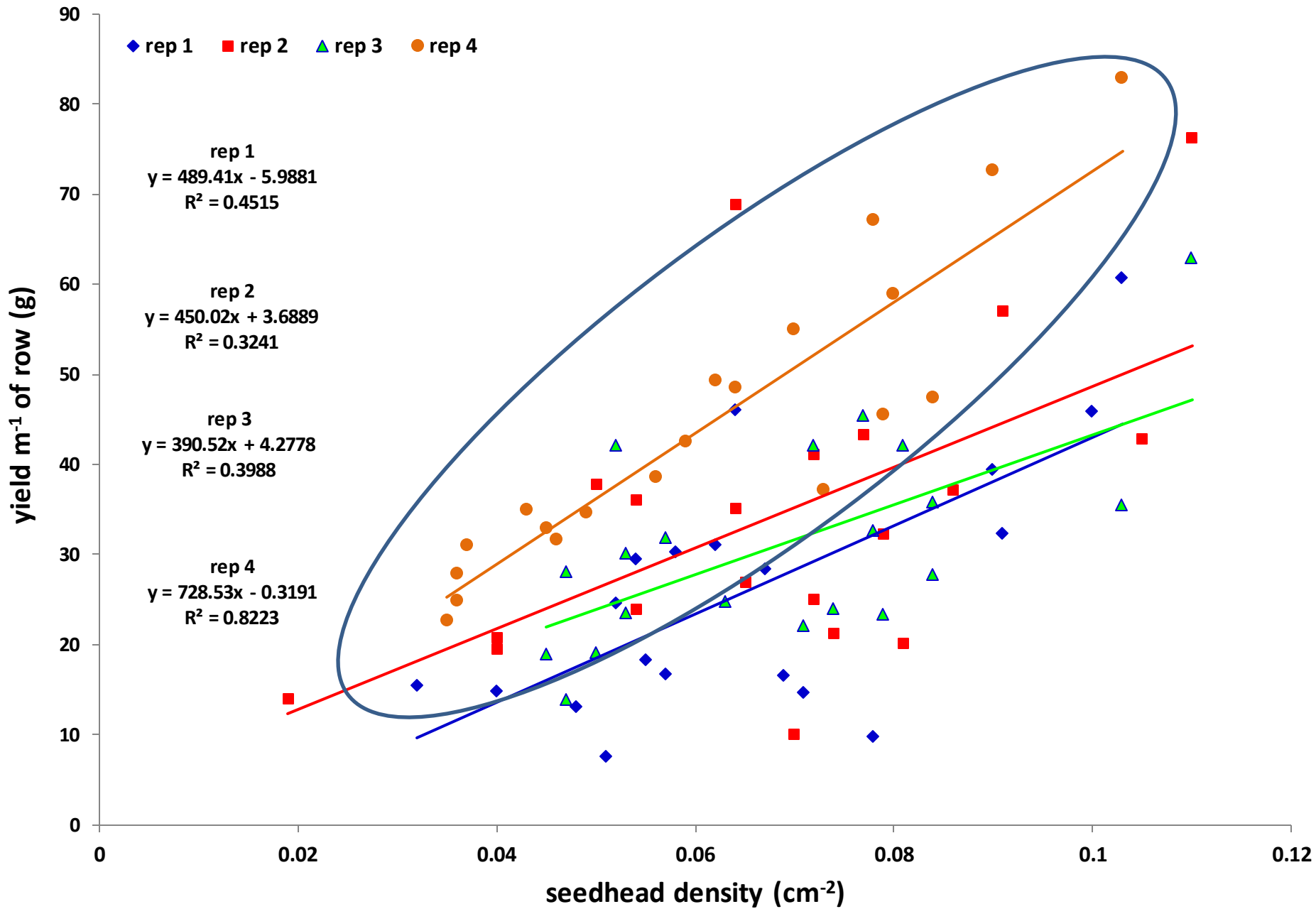
rep 4
 $y = 728.53x - 0.3191$
 $R^2 = 0.8223$

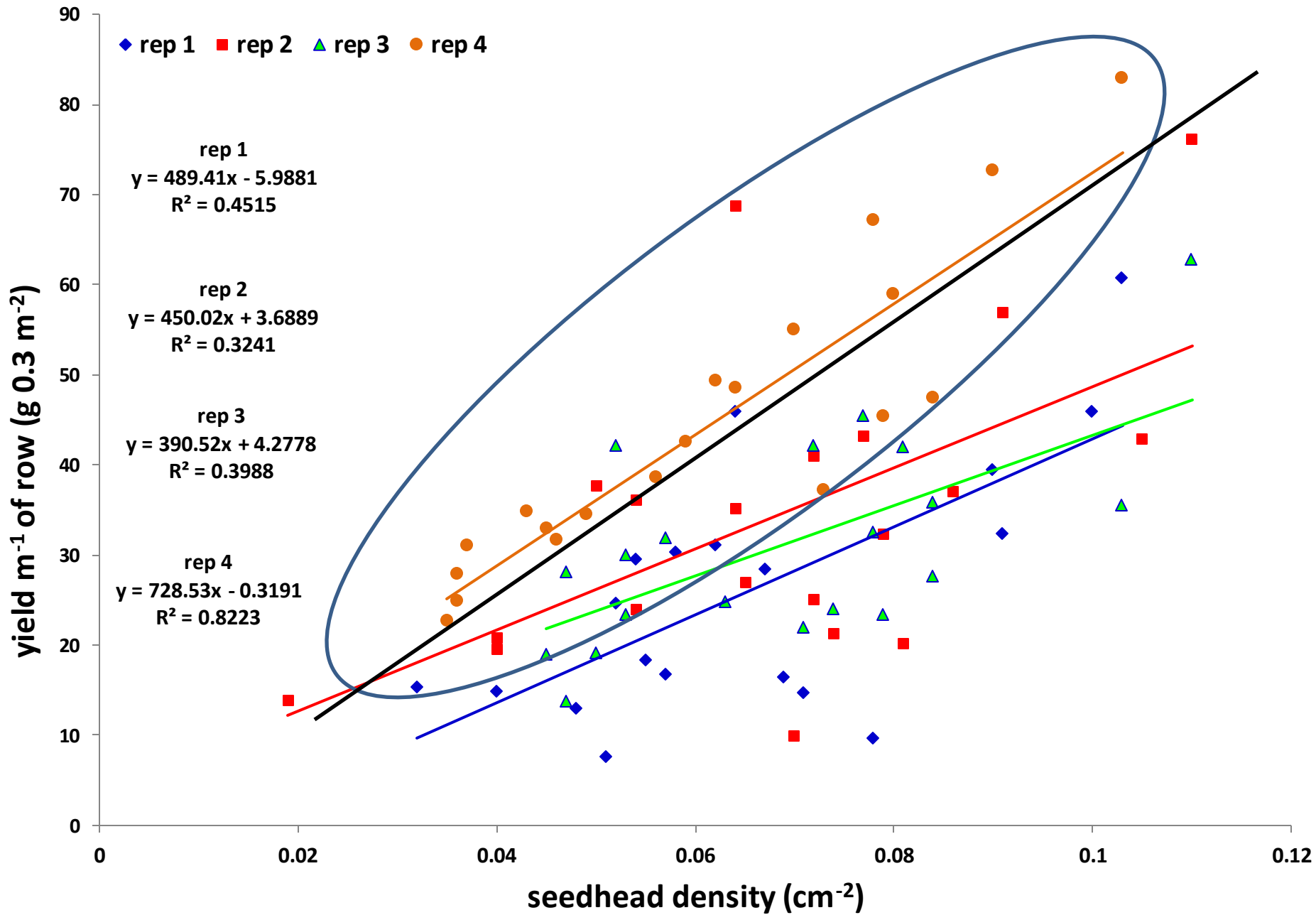
yield m^{-1} of row (g)

0 0.02 0.04 0.06 0.08 0.1 0.12

seedhead density (cm^{-2})







Rep 1 June 29, 2016



Rep 1 June 26, 2017







Soil tests - June 21, 2017

Rep 1 – 408 lbs N acre⁻¹ (2016 mean HI 4.47)

Rep 2 – 131 lbs N acre⁻¹ (2016 mean HI 5.00)

Rep 3 – 12 lbs N acre⁻¹ (2016 mean HI 5.64)

Rep 4 – 12 lbs N acre⁻¹ (2016 mean HI 9.97)

Rep 1 produced 26% more biomass but only 67% of the total yield of rep 4 in 2016.

Other work:

**Crossing between
dwarf (67.6 cm)
and tall (91.9 cm)
plants and looking
for a dwarfing
control.**



Fusarium Head Blight

With Jamie Larsen,
AAFC Lethbridge,
screening IWG for
FHB tolerance
(mainly GRIN
accessions).

Four strains of FHB
@ 10x wheat
inoculation rates.

