



Maize Shovelomics Scoreboard

Roots Lab @ Penn State University: <http://roots.psu.edu>
 Download this 11x17" scoreboard: <http://goo.gl/kAVXj>
 Modified June 24, 2013

BA, CA
 Place maize stem at the vertical center-line to score BA & CA at 5 cm, 10 cm, and/or 15 cm.

KEY
 BR = brace roots (aboveground nodal)
 CR = crown roots (belowground nodal)
 LR = lateral roots (e.g. first order LR)
 W = whorl ; N = number of roots
 BA, CA = angle of each BRW and CRW at 15cm
 BL, CL = median length of first order laterals
 BB, CB = relative density of laterals (# LR / cm)

Suggested Scoring
 1. # of whorls of BR, CR (BW, CW)
 2. # of BR, CR per whorl (BN1, CN1...)
 3. Angle of BR, CR per whorl (BA1, CA1...)
 4. Lateral root length score per whorl (BL1, CL1...)
 5. Lateral root density score per whorl (BB1, CB1...)
 See Trachsel S., Kaepler S., Brown K., Lynch J. *Plant Soil* 2010.

BL, CL Place BR or CR along bold horizontal line to score LR length (cm).

BB, CB Place BR or CR along bold horizontal line to score LR density.

Score: 1=2 LR/cm, 2=4, 3=6, 4=8, 5=10, 6=12, 7=16, 8=20, 9=24.

