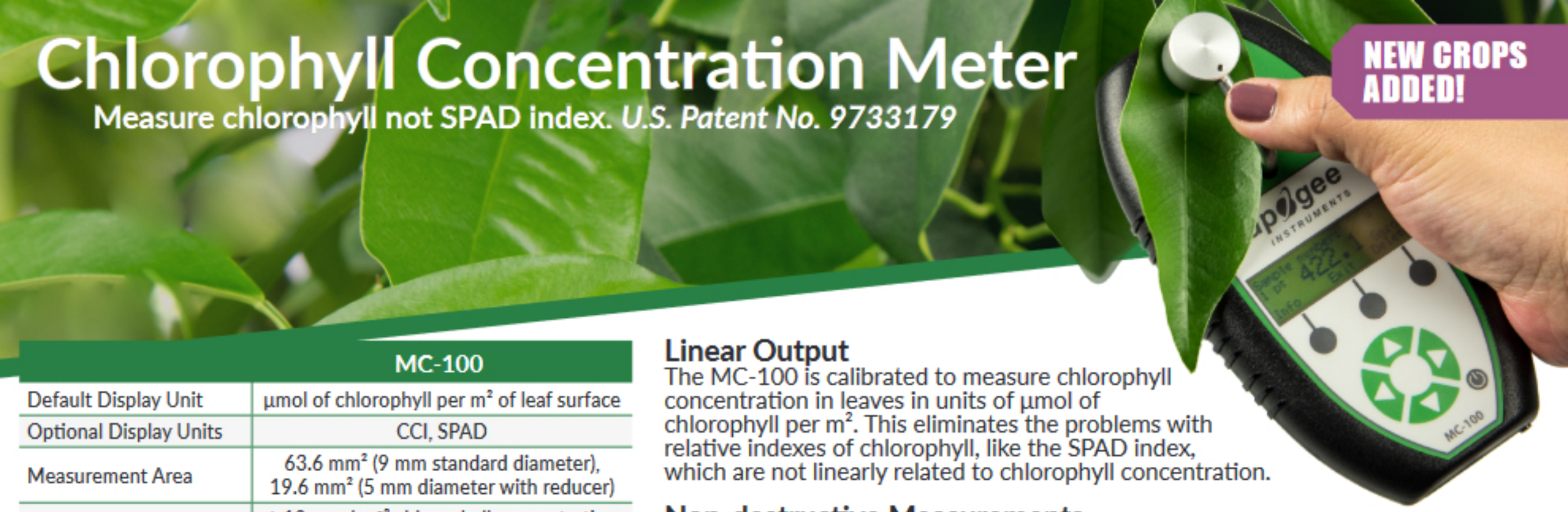
Chlorophyll Concentration Meter

Measure chlorophyll not SPAD index. ***U.S. Patent No. 9733179***

NEW CROPS ADDED!



	MC-100
Default Display Unit	µmol of chlorophyll per m^2 of leaf surface
Optional Display Units	CCI, SPAD
Measurement Area	63.6 mm^2 (9 mm standard diameter), 19.6 mm^2 (5 mm diameter with reducer)
Resolution	± 10 µmol m^{-2} chlorophyll concentration using generic equation
Linearity	± 1 %
Repeatability	± 1 %
Sample Acquisition Time	Less than 3 s
Storage Capacity	8 MB for up to 160,000 data measurements
Internal GPS Storage	8 MB for up to 94,000 data measurements
User Interface	50 mm by 15 mm graphic display screen, 8 push buttons for control and data manipulation
Data Output	Mini-B USB port provided for main data transfer
Operating Temperature	0 to 50 C
Temperature Drift	Temperature compensated source and detector circuitry over full range
Power Requirement	Standard 9 V DC alkaline battery
Dimensions	152 mm length, 82 mm width, 25 mm height
Mass	210 g
Warranty	1 year against defects in materials and workmanship

Linear Output

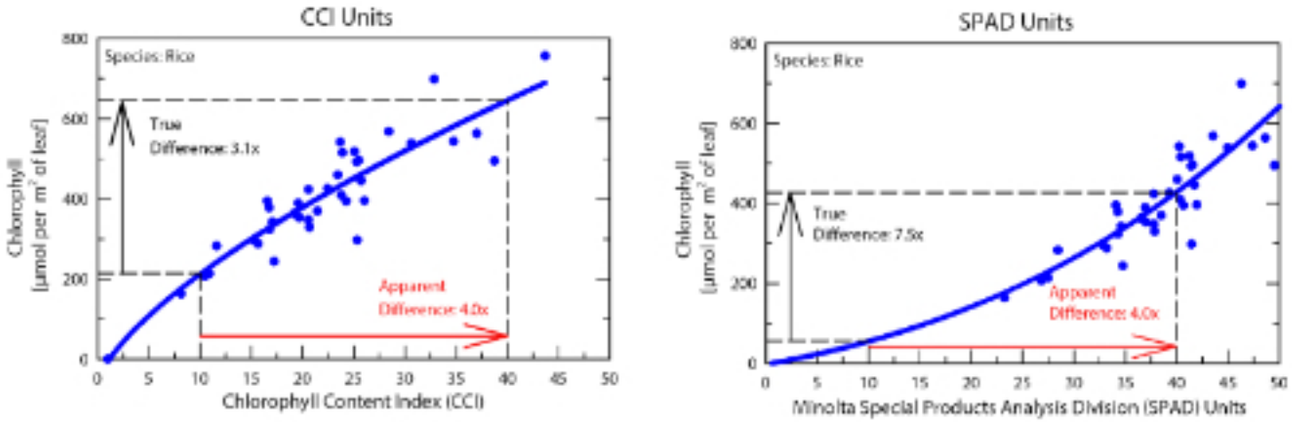
The MC-100 is calibrated to measure chlorophyll concentration in leaves in units of µmol of chlorophyll per m^2. This eliminates the problems with relative indexes of chlorophyll, like the SPAD index, which are not linearly related to chlorophyll concentration.

Non-destructive Measurements

The meter optically measures the ratio of red and near infrared transmittance with a sample rate of less than three seconds. This results in measurements that are non-destructive and nearly instantaneous. The meter facilitates rapid measurement of multiple leaves and monitoring of the same leaves over time.

See our website for over 35 available species-specific settings:

Arugula, barley, blackberry, boxelder, buttercunch lettuce, cannabis, cherry, coffee, collard greens, corn, crab apple, crimson king maple, european birch, forsythia, grapevine, hops, japanese maple, kale, kohlrabi, lilac, norway maple, paper birch, peas, peppers, purple leaf sand cherry, quaking aspen, rice, romaine lettuce, sorghum, soybean, spinach, strawberry, swiss chard, timothy hay, tomato, waldmann's green lettuce, and wheat.
*New crops added in 2022



Above: Older chlorophyll indexes such as CCI (left) and SPAD (right) do not have a linear relationship to chlorophyll concentration. Parry C., Blonquist Jr., J.M., & Bugbee, B. 2014. *Plant, Cell and Environment 37:2508-2520.*