

Equipment List for Mobile Lab, Irrigation Systems & Infrastructure, & Flow Monitoring.**Description/Item Name****Mobile Lab Equipment for Irrigation and Nutrient Management Assessments**

Buckets, 1 gallon

Graduated Cylinders, 100-2000 mL

Plastic Funnels

1/2" pressure test fitting (coupler) Roberts

1/2" Spin loc barbed connectors (t-tape connectors)

1/2" pvc- Spin loc-schrader- Barbed connectors (custom-built)

1/2" pressure test fitting (end) Roberts

1/2" pvc- Spin loc-schrader Barbed ends (custom-built)

1/2" Spin loc Barbed-low pressure release flush valve ends

3/4" Spin loc-Schrader-Barbed connectors (custom-built)

3/4" Spin loc-Barbed-Barbed connectors (t-tape connectors)

3/4" Spin loc Barbed-low pressure release flush valve ends

1/4" Sharp Barbed-1/4" Tubing-Brass Schrader connectors

1/2" Clear Tubing Cuffs (to guide drips into catch cans)

3/4" Garden Hose Cuffs (to guide drips into catch cans)

Assortment of 1/2" garden hose pieces, 2.5' to 4' in length (for sprinkler discharge evaluation)

Carboy or water jug, 5 gallons

Serial Port Cable

Teflon tape, rolls, 1/2" and 3/4"

1/4" NPT thread tap

1/2" threaded Schrader valve stems

1/2" NPT thread tap

Cordless Drill

Drill bit set

Toughbook laptop computer

Small Adjustable Crescent Wrench

Large Adjustable Crescent Wrench

Crescent Wrench set (Metric and SAE)

Socket set (Metric and SAE)

Counter, analog "clicker" style

Waterproof pH/EC/TDS/Temperature sensor

Volt Meter

Dwyer Digital Pressure Gages with tubing and Schrader Clip-On Heads, 0-50 PSI

Analog, oil-filled pressure gages (for backup in case the digital pressure gages fail)

Garmin Global Positioning System (GPS)

Phillips Screwdriver, small and large

Flathead Screwdriver, small

Scissors

9 Volt Batteries for Pressure Gages

AA/AAA Batteries for GPS and meters

Plastic tool box Craftsman 16-1/4" tool organizer

Large Plastic tool box, Craftsman sit/stand/tote truck
Plastic storage tubs with lids, 20 gallon size (to store Items 2-23)
Plastic Buckets, 5 gallon size
Tool bag
Water resistant Stop Watches
Field Notebooks
Utility Knives
Caliper
Pipe wrench 10" and 18"
Thermo-anometer
Rainsuit (one pants w/suspenders, one jacket)
Goof plugs (pack of 50)
Calibration solution packets Hanna® (box)
Tape measure 300'
Igloo Maxcold 5 gallon water cooler
Galvanized lateral coupler with gasket, full band, and latch 3
PVC bushings 1"
Tongue and groove pliers
Long nose pliers
Wire stripper/cutter
Ratcheting pvc pipe cutter
PVC hand saw 16-20"
PVC cement (gray, high-strength) and primer
Irrigation System Infrastructure for Irrigation and Nutrient Management
Pressure gauges
Layflat
Drip tape
Drip-tape connectors
Sprinkler nozzles
Variable rate drive (for pump)
Sprinkler pipe
Sprinkler heads
Pressure regulating valves
Submain lines
Backflow equipment
Filter system
Drip tape installation equipment
Practices to improve DU (anything from moving pipe, infrastructure for pumps, etc.)
Infrastructure improvements on wells (well head replacement, replace pumps, permeability of well, pressure compensating well pumps)
Irrigation Scheduling Infrastructure for Irrigation and Nutrient Management
Flow meters and associated parts (pvc, couplers, clamps, cement, bolts, etc..)
Soil moisture sensors (and datalogger)
Weather station
Hortau Sensors
Pressure compensating drip

Replace worn out sprinkler nozzles
Timer for turning off pump
Irrigation scheduling software
Equipment for Monitoring Flow for Irrigation and Nutrient Management
Flow meter with pulse output
Data logger
Data logger enclosure
Data logger battery
Solar panel including mounting bracket
Cell phone modem
Cell phone antenna
Cell phone mounting kit
Null modem cable
Cell phone data plan
Cell plan start-up fee
Practices to improve DU (anything from moving pipe, infrastructure for pumps, etc.)
Infrastructure improvements on wells (well head replacement, replace pumps, permeability of well, pressure compensating well pumps)
CIMIS station
Hortau Sensors
Pressure compensating drip
Replace worn out sprinkler nozzles