If you have NO FLOW READING, but liquid is flowing.

That could be a bad flowmeter, or it could be a harness issue. We need to have 12 v between the red (power) and black (ground) wires on the connector that plugs into the flowmeter. We should have between 4 and 5 volts between the blue(signal) and black (ground). Check all the connectors from the flowmeter back to the rate controller. Unplug, visually inspect, clean, push/pull on the wires and pins, plug them back in. If the voltages are good and the harness inspection looks ok, it's likely a bad flowmeter. Harnesses that have been in use a while can get corrosion on the pins or on the wires that connect to the pins and terminals. They might be good enough to run a voltmeter, but if there is corrosion, the connection may not be good enough to run a flowmeter.

TAP TEST

This will work slightly different depending on the display and controller you are using. In general, the tap test consists of creating a bunch of pulses by tapping repeatedly between the flowmeter signal and ground pins on the harness. The theory is that if the pulses show up as flow on the display, then the harnessing is good. In practice, sometimes a tap test will show flow on the screen, but there is still a harness problem (such as corrosion on pins or wires, or bent or loose pins).

When using Sentinel Rate Control, go to the Diagnostic tab. There you can see flow in gpm or flowmeter frequency (hz or pulses/sec). To get a decent view from gpm you will need to go the Setup tab and set the Flow Cal at 1. Have someone watch the Diagnostic screen while someone else taps repeatedly between the flow signal and ground pins (the 2 outside pins on the flowmeter harness connector). If nothing registers on the screen, go back to the next connector going towards the rate controller. Tap between flow signal (blue) and ground (black). Do a good visual check on all pins and connectors. Reset the flow cal if you changed it.

On a JD Rate Controller, have someone watch the Diagnostics > Readings > Delivery System screen while someone else uses a short wire or bent paper clip to tap repeatedly between the two outside pins on the flowmeter connector on the pump harness. Flow Meter (Hz) should register some numbers indicating pulses are being received. Normally, if the tap test works, the harnessing is good, and the flowmeter is bad. (Ocassionally, a tap test and voltage test will be OK, but there is still a harness issue - generally from corroded pins or wires or a pin not making good contact.

If you replace a blue label flowmeter with a new orange label flowmeter, you need to order a 17842 adapter cable, because the blue label and orange label flowmeters have different plug-in connectors.