

Drip Irrigation System Startup: Recommended Procedures

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Promoting Sustainable Winegrowing

To make sure your drip irrigation system is going to operate as you expect it to, follow these steps before the irrigation season arrives. Earlier is better in case you discover repairs that will take time to complete.

System Startup

- 1. Run the well pump for a few minutes** discharging the water somewhere other than the irrigation system before sending water to the filter. Over the winter, sand or other particulates may have collected in the water around the pump. Discharge of this material as a “plug” will cause problems for the filter.
- 2. Inspect the filter(s).** For sand media filters, consider whether it is time to replace the media. For screen filters, check for holes in the screen and general wear and tear on and around the screens. Damage may be due to sand from the well and should be addressed.
- 3. Close all submain valves. Open mainline flush valves** and run the system until discharge water runs clear for 5 minutes.
- 4. Close the mainline flush valves and open submain valves** with flush manifolds open to clear the submains of debris.
- 5. Flush the submains until the water at the end of the laterals runs clear.** If there is not enough pressure and velocity to maintain a strong flow, consider flushing a few lines at a time. Close the submains.
- 6. Close the flush manifolds** on lateral ends.
- 7. Operate the system until it is fully pressurized and all air is discharged** block by block as it was designed.
- 8. Starting from the well, check the system for leaks and necessary repairs.**
- 9. Check each individual row** for missing emitters or other damage.
- 10. Make sure to check drip risers** and any other parts of the system which are above ground for damage.
- 11. If you make repairs, be sure to re-flush the lines after leaks are repaired.**
- 12. Check pressures at key points** in the system with gauges and **adjust all pressure regulators and pressure-regulating valves** as necessary.
- 13. Check on other system components:**
 - Pumps run when they should
 - Controllers work
 - Air vents actually let air out and keep water in
 - Try out the fertilizer injector without fertilizer
 - Check that pressure gauges on the filters are accurate



Check emitters to ensure they are not plugged.

References

Drip System Operation and Maintenance: Recommended Procedures for a Drip Irrigation System. 2012. Netafim.

Drip Irrigation System Maintenance Handbook, 2014. Netafim.