

Contact information

New Mexico State University's
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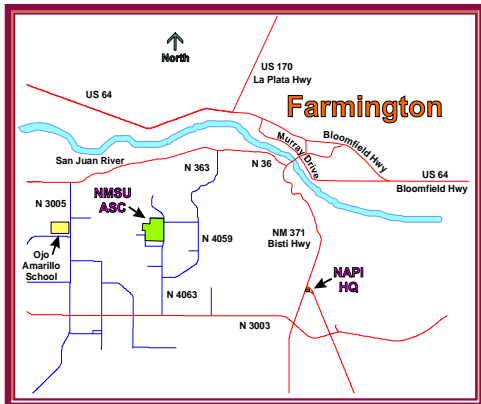
Phone: 505.960.7757 or 505.960.7758
Fax: 505.960.5246

Email: farmingt@nmsu.edu
URL: <http://farmingtonsc.nmsu.edu>

Location

The NMSU ASC-Farmington
Xeriscape Research garden is open for public
viewing Monday - Friday, 8:00a.m. to 4:00p.m.

Group tours available by calling the NMSU
Agricultural Science Center at 505.960.7757.



Informational Websites

New Mexico State Engineer Office
http://www.ose.state.nm.us/wucp_home_owners.html

NMSU's Agricultural Science Center-Farmington
<http://farmingtonsc.nmsu.edu>

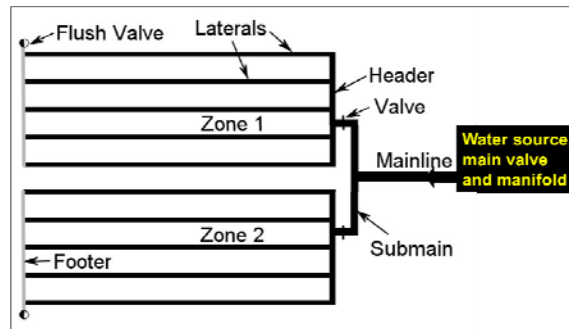
NMSU's Irrigation Management
<http://irrigationmanagement.nmsu.edu/index.html>

NMSU's Pollinator Project
<http://aces.nmsu.edu/ipm/pollinator-project.html>

Acknowledgment

Brochure written and designed by:
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Online printable PDF version at:
<http://irrigationmanagement.nmsu.edu/drip-irrigation.html>



Low or High Pressure (Fig. 7)

Drip Irrigation

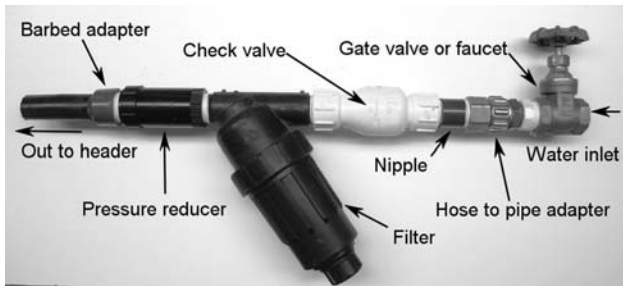
Gardens and Small Farms



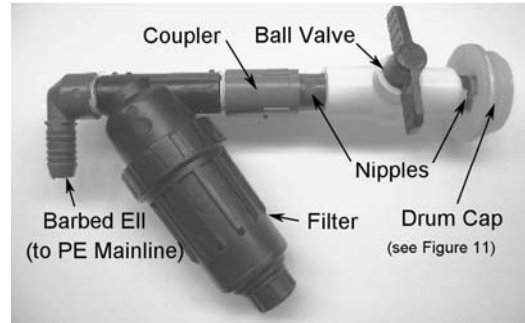
Disclaimer: Plant quality ratings were subjective. Results may vary with locations, microclimate, soil characteristics, etc. While efforts have been made to insure accuracy of the data and documentation, complete accuracy cannot be guaranteed. New Mexico State University shall not be liable for damages resulting from any use or misinterpretation of data. New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating. 03/2014

Drip Irrigation System Components

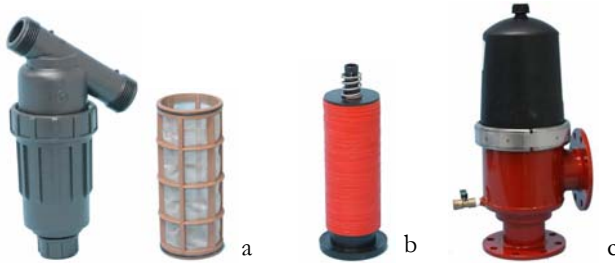
High Pressure Manifold (Fig. 1)



Low Pressure Components (Fig. 2)



Filters High or Low Pressure (Fig. 3)



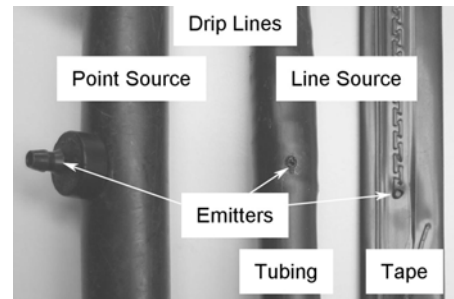
Poly pipe (Fig. 4)



Low or High Pressure Layout (Fig. 5)



Emitters (Fig. 6)



Drip Irrigation Model

Goal of Irrigation

Provide crop water requirements for target yield or quality while minimizing water waste from runoff or deep drainage.

Irrigation Efficiency

Irrigation efficiency is defined as uniformity of water application. If each sq. ft. of an irrigated area received an identical amount of water, the system would be 100% efficient.

Drip Irrigation

Drip Irrigation for gardens and small farms could be 80 - 90% efficient when utilizing best management practices for drip irrigation based on soil type and estimated crop water requirement.

Drip Irrigation System Components

- High Pressure Drip System
Manifold components: barbed adapter, pressure reducer, filter, check valve, nipple, hose to pipe adapter, and gate valve or faucet. (Fig. 1)
- Low Pressure Drip System
Rainwater catchment system components: barbed elbow (to PE mainline), filter, coupler, nipples, ball valve, and drum cap. (Fig. 2)

Irrigation Water Filtration

Filters are used to trap irrigation water sediment that may clog emitters. Types are screen, disk, and heavy duty 3-inch disk filters. (Figs. 3 a, b, c)

Irrigation Water Distribution

- Poly pipe - Use for mainlines, headers, and drip laterals. (1/2 inch for small plot rows <200 ft.)
- Drip tape - Use in place of 1/2 inch poly pipe for lateral lines only! (Fig. 4 a, b)
- Miscellaneous fittings - Barbed fittings, clamp, compression fittings, PE, Teflon tape, and landscape staples. (Fig. 5)
- Emitter types used are point source or line source. Emitter (drinker) flow rates should be less than 5 gallons per hour for each emitter. (Fig. 6)
Operating pressures should be less than 30 psi or 2 to 6 psi for gravity systems.
- Example of drip irrigation layout for garden or small farm. [See opposite brochure page.](#) (Fig. 7) .