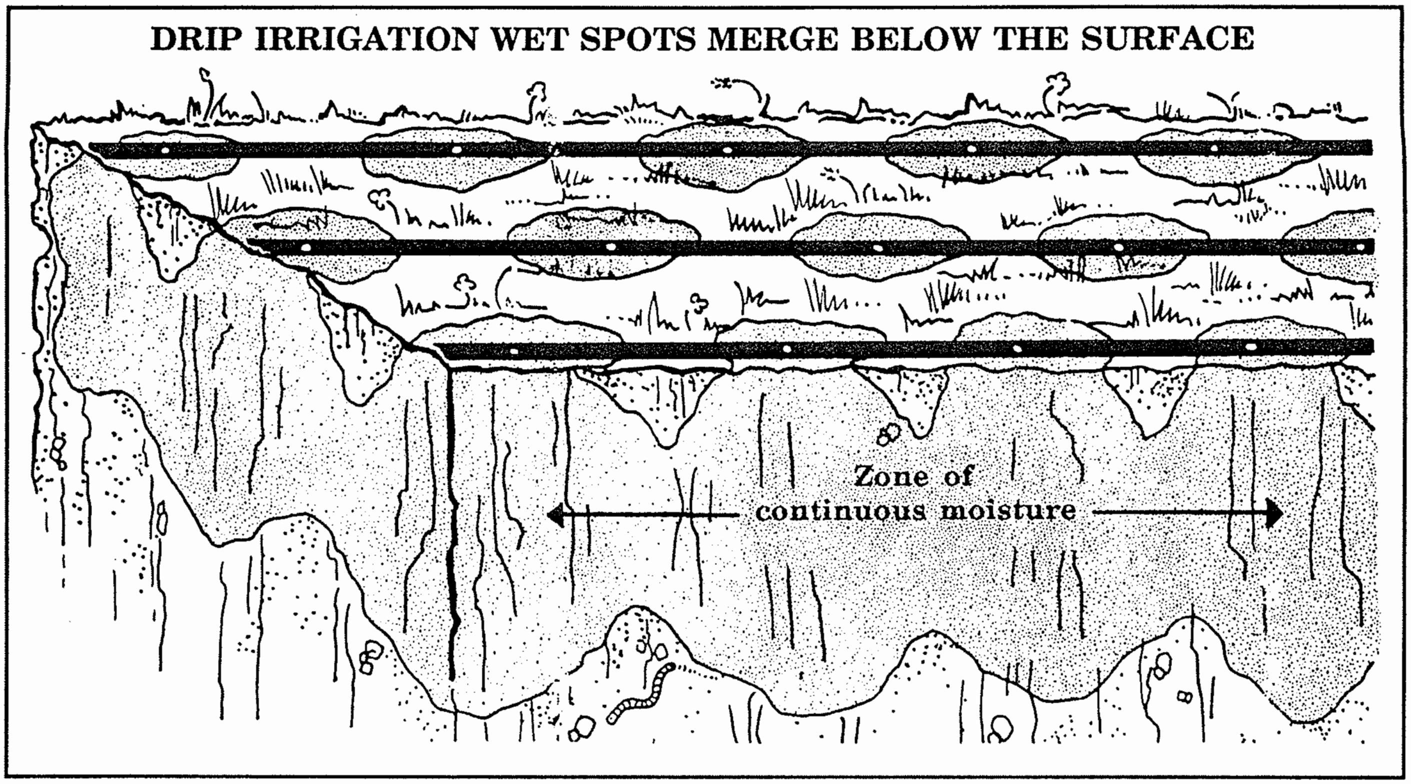

Figure 12 This illustration shows how the wet spots beneath each in-line emitter merge to form one continuous zone of moisture. The soil for the entire length of the in-line tubing is moist some 4 to 6 inches beneath the surface, depending upon the soil type. Sandier soils require tubing with the emitters pre-installed 12 inches apart, while heavier, clayey soils need emitters only every 18 or 24 inches.

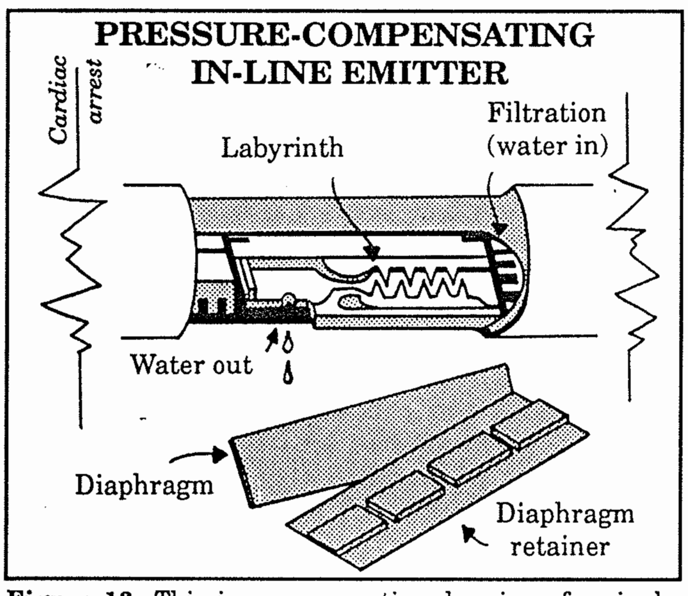

Figure 13 This is a cross-section drawing of a single emitter inside pressure-compensating in-line emitter tubing. The tortuous path is much shorter than in the noncompensating in-line tubing. The flexible diaphragm handles both pressure regulation and the flushing of any particles which might clog the emitter.

they aren't carried by very many mail-order or retail outlets. (See **Suppliers and Resources** near the end of the book.)

Flow Rates Compared

The main assembly represents a major cost in any drip irrigation system. The total flow rate of each type of tubing or hose has a direct influence on the cost of main assemblies. The lower the flow rate of your water system, the more main assemblies you'll need. With porous hose, each valve can reliably serve up to a total of 200 feet of tubing without a substantial reduction in water flow (with a flow rate of 160 gph at 10 psi). A main assembly or valve, servicing drip hose with punched-in emitters, can supply at least 200 feet of drip hose, for a maximum flow of 240 gph. With in-line pressure-compensating tubing, a single main assembly or valve can support up to 326 linear feet with 12-inch spacing and pressure-compensating emitters rated at 1/2 gph (for a total flow rate of 163 gph at 25 psi) or 503 feet with 18-inch spacings and 584 feet with