TABLE 1. Worksheet for Trickle Irrigation Systems.

1. Water use rate: gal/plant/day _____
   or
   gal/foot/day _____

2. Plants/acre _____ or Plants/foot _____

3. Total field area, acres, to be served by pump _____

4. Flowrate per emitter, gph _____

5. Emitters/plant _____ or emitters/foot _____

6. Hours of operation per day for each block = $\frac{[1]}{[4] \times [5]}$ = _____

7. Approximate number of blocks = $\frac{20.0}{[6]}$ = _____

8. Actual blocks = _____ (Should provide 18 to 22 total hours per day)

9. Actual running time, hours = [8] x [6] = _____

10. Acres/Block = $\frac{[3]}{[8]}$ = _____

*Bracketed numbers refer to values obtained in a previous step.

11. Emitters/Block = [10] x [2] x [5] = _____

12. Gallons/Hour = [4] x [11] = _____

13. Pumping Rate, Gal/Min = $\frac{[12]}{60.0}$ = _____

14. Minimum pressure in field, psi = _____

15. Mainline friction loss = $\frac{1.0 \text{ psi}/100' \times ____ \text{ feet}}{100}$ = _____ psi

16. Friction loss in other fittings = 4.0 psi

17. Vertical distance from pump to highest point in field, feet = _____

18. Pumping lift, psi = $\frac{[17]}{2.31}$ = _____

19. Pump pressure, psi = [14] + [15] + [16] + [18] = _____

20. Pump Specifications: _____ gpm from [13]

    @ _____ psi from [19]