

Table 3.3 Friction Loss of Forestry Hose

Flow	5/8-in GH	3/4-in straight hardline	3/4-in reeled hardline	1-in Cotton synthetic186 Imperial	Niedner	National	1-in All-synthetic187 Mercedes	Imperial	National	Niedner	1-in Hotline
gpm	psi/100ft	psi/100ft	psi/100ft	v 100ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft
5	6	5	6	1	1	1	1	0	1	1	2
10	23	13	17	2	3	3	3	2	4	3	4
15	45	27	34	3	3	3	5	4	8	9	9
20	78	42	53	5	6	6	7	8	16	18	16
25	92	62	79	8	10	10	11	12	25	29	24
30	~	86	109	18	19	24	14	18	35	42	34
35	~	91	115	22	25	28	20	24	48	57	49
40	~	~	~	28	33	37	22	31	61	75	59
45	~	~	~	35	41	46	24	39	77	~	73
50	~	~	~	42	50	55	29	48	86	~	80
60	~	~	~	60	68	73	41	64	~	~	~
70	~	~	~	65	~	~	55	~	~	~	~
80	~	~	~	~	~	~	~	~	~	~	~
90	~	~	~	~	~	~	~	~	~	~	~
100	~	~	~	~	~	~	~	~	~	~	~

Friction loss (pounds per square inch per 100 feet) in hose comparison.

Flow	1-1/2-in Cotton-synthetic186 Imperial	" National	1-1/2-in CA11-synthetic187 Mercedes	" Imperial	" National	" Niedner	1-1/2-in hotline	1-3/4-in hotline
gpm	psi/100 ft	psi/100ft	psi/100 ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft	psi/100ft
5	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	0	0
15	1	1	1	1	1	1	1	0
20	2	2	2	2	2	2	2	0
25	3	2	2	2	3	3	3	2
30	3	3	2	3	4	5	5	2
35	4	4	4	4	5	7	6	2
40	5	5	4	5	7	8	8	2
45	6	7	6	6	8	11	10	3
50	8	8	6	7	11	13	12	3
60	9	12	7	9	16	20	18	5
70	12	17	9	12	21	26	24	6
80	16	22	12	15	23	33	31	8
90	20	27	15	19	30	42	39	11
100	25	29	19	24	32	52	~	14