

Apple scab

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Apple scab fungus overwinters in infected leaves on the orchard floor. When the leaves become wet, spores are discharged and disperse into surrounding trees. Infection occurs on foliage, blossoms, petioles, and fruit during periods of sufficient wetting at given temperatures (see **Adapted Mills Table**).

Primary infections usually develop first on spur leaves and on the blossom end (calyx) of fruit. Conidia are produced abundantly in these velvety-brown to olive lesions and serve as sources of secondary infection spread by wind and rain.

Are conditions right for apple scab?

Forecast models for apple scab are available at **Enviro-weather**. Select a weather station from the map that is closest to your location. Then click on "fruit" for a list of weather resources and models for fruit production.



Apple scab initial symptoms.



Primary scab infection on spur leaves of McIntosh apple.



Primary scab infection on the blossom end of McIntosh apple.

Monitoring: Scout spur leaves and fruit in late May for primary scab symptoms. These primary infections will provide the inoculum for secondary scab infections on terminal leaves and fruit.



Apple scab



Sporulating scab lesions on McIntosh apple leaves.



Late-season scab infection on a Hampshire apple.



Spur leaves of McIntosh apple (red arrows) with primary scab infection; (currently) uninfected terminal leaves (blue arrows).

Adapted Mills Table

Approx. wetting period required for primary apple scab infection at various air temperatures and time required for conidia to develop.

Average air temperature		Wetting period (hr) ^b			Incubation period ^c (days)
°F	°C	light infectn	moderate infectn	heavy infectn	
78	25.6	13	17	26	—
77	25.0	11	14	21	—
76	24.4	9.5	12	19	—
63-75	17.2-23	9	12	18	9
62	16.7	9	12	18	10
61	16.1	9	13	20	10
60	15.6	9.5	13	20	11
59	15.0	10	13	21	12
58	14.4	10	14	21	12
57	13.9	10	14	22	13
56	13.3	11	15	22	13
55	12.8	11	16	24	14
54	12.2	11.5	16	24	14
53	11.7	12	17	25	15
52	11.1	12	18	26	15
51	10.6	13	18	27	16
50	10.0	14	19	29	16
49	9.4	14.5	20	30	17
48	8.9	15	20	30	17
47	8.3	15	23	35	—
46	7.8	16	24	37	—
45	7.2	17	26	40	—
44	6.6	19	28	43	—
43	6.1	21	30	47	—
42	5.5	23	33	50	—
41	5.0	26	37	53	—
40	4.4	29	41	56	—
39	3.9	33	45	60	—
38	3.3	37	50	64	—
37	2.7	41	55	68	—
33 - 36	0.5 - 2.2	48	72	96	—

^a Adapted from Mills, 1944; modified by A.L. Jones.

^b The infection period starts when rain begins.

^c Approximate number of days required for conidial development after the start of the infection period.