



Plant Pathology – Seed Health Testing

SERVICE SAMPLE FEE SCHEDULE

Effective November 14, 2016

The list below provides base prices for specific host/pathogen combinations for tests of seed for the presence of seed borne pathogens. Occasionally, additional testing may be required, such as pathogenicity testing, PCR testing, or DNA sequencing. Fees for such tests will be in addition to the basic seed health tests and are based on the \$70 hourly rate plus materials required for the tests (please refer to the Plant Pathology Lab fee schedule). An additional one-quarter hour (\$17.50) administrative fee will be charged per group of samples (i.e., 1 or more samples) submitted on a single Pest and Damage Report (PDR) form.

Except as noted in the table, all samples submitted for seed health testing **must be non-treated seed**. The minimum sample size and approximate test duration for each host/pathogen combination is provided in the table. Please note, except for Bacterial angular leafspot on cotton, the CDFA-PPDB Seed Health Testing Lab does not currently provide bacterial testing of seed for seed borne pathogens. For host/pathogen combinations not included in the table, please contact the Dr. YunPing Zhang, 916 738-6721.

Host Crop	Disease	Pathogen	Test Method	Test Fee	Approximate Test Duration	Minimum Sample Size (non-treated seed ONLY unless otherwise noted)
Alfalfa	Spring Black Stem	<i>Phoma medicaginis</i>	Agar plating	\$60.00	2 weeks	500 seeds
Alfalfa	Verticillium Wilt	<i>Verticillium albo-atrum</i>	Agar plating	\$60.00	2-5 weeks	2000 seeds
Alfalfa	Alfalfa Mosaic Virus	Alfalfa mosaic virus	ELISA	\$70.00	1 weeks	2000 seeds
Beans & Other Legumes	Diaporthe	<i>Diaporthe/Phomopsis spp.</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Beans & Other Legumes	Tomato ringspot virus	Tomato ringspot virus	ELISA	\$70.00	1 week	500 seeds
Beans & Other Legumes	Tobacco ringspot virus	Tomato ringspot virus	ELISA	\$70.00	1 week	500 seeds
Beets	Verticillium wilt	<i>Verticillium dahliae</i>	Agar plating	\$60.00	2-3 weeks	500 seeds
Carrot & Coriander	Alternaria leaf blight	<i>Alternaria dauci</i> [<i>A. porri</i>]	Blotter test	\$70.00	2 weeks	2000 seeds
Carrot & Coriander	Black rot	<i>Alternaria radicina</i>	Blotter test	\$70.00	2 weeks	2000 seeds
Celery	Alternaria leaf spot	<i>Alternaria dauci</i>	Blotter test	\$70.00	2 weeks	2 g seed
Celery	Late blight	<i>Septoria apiicola</i>	Seed wash	\$52.50	1 week	4 g seed
Cotton	Bacterial angular leafspot	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i>	Greenhouse grow-out	\$150.00 \$200.00	6-8-weeks	1200 non-treated seeds 1200 treated seeds
Cotton	Anthraxnose	<i>Glomerella gossypii</i> [anamorph <i>Colletotrichum gossypii</i>]	Greenhouse grow-out	\$150.00 \$200.00	3 weeks	1200 non-treated seeds 1200 treated seeds



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Crucifers (Cabbage, Broccoli, etc.)	White mold	<i>Sclerotinia</i> spp.	Visual Exam – contact Seed Science Lab			25,000 seeds minimum
Crucifers (Cabbage, Broccoli, etc.)	Black leg	<i>Phoma lingam</i>	Blotter test	\$70.00	3 weeks	1000 seeds
Crucifers (Cabbage, Broccoli, etc.)	Alternaria leaf spot	<i>Alternaria</i> spp.	Blotter test	\$70.00	2 weeks	1000 seeds
Cucurbits (squash, melon, cucumber, watermelon, etc.)	Fusarium diseases	<i>Fusarium</i> spp.	Agar plating	\$60.00	2-5 weeks	500 seeds
Cucurbits (squash, melon, cucumber, watermelon, etc.)	Scab	<i>Cladosporium cucumerinum</i>	Blotter test	\$70.00	2-5 weeks	500 seeds
Eggplant	Fusarium wilt	<i>Fusarium oxysporum</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Grasses & Cereal Grains	Root rot	<i>Cochliobolus sativus</i>	Blotter test	\$70.00	2 weeks	500 seeds
Grasses & Cereal Grains	Foot rot of grasses	<i>Drechslera sorokiniana</i>	Blotter test	\$70.00	2 weeks	500 seeds
Grasses & Cereal Grains	Ergot of grasses	<i>Claviceps purpurea</i>	Visual Exam – contact Seed Science Lab			25,000 seeds minimum
Grasses & Cereal Grains	Blind seed	<i>Gloeotinia temulenta</i>	Seed wash	\$52.50	2-5 weeks	50 g seed
Lettuce	Lettuce mosaic virus	Lettuce mosaic virus	ELISA	\$185.00	1 week	30,000 seeds
Lettuce	Septoria leaf spot	<i>Septoria lactucae</i>	Seed wash	\$52.50	1 week	30,000 seeds
Onion, Leeks, etc.	Botrytis diseases	<i>Botrytis</i> spp.	Agar plating	\$60.00	2 weeks	500 seeds
Onion, Leeks, etc.	Basal plate rot	<i>Fusarium oxysporum</i>	Agar plating	\$60.00	2-4 weeks	1000 seeds
Onion, Leeks, etc.	Purple botch	<i>Alternaria porri</i>	Blotter test	\$70.00	3 weeks	2000 seed

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Onion, Leeks, etc.	White rot	<i>Sclerotium cepivorum</i>	Visual Exam – contact Seed Science Lab			25,000 seeds minimum
Onion, Leeks, etc.	Onion smut	<i>Urocystis magica [U. cepulae]</i>	Seed wash	\$52.50	1 week	50 g seeds
Parsley	Alternaria leaf apot	<i>Alternaria dauci</i>	Blotter test	\$70.00	2 weeks	2 g seed
Parsley	Late blight	<i>Septoria petrosellini</i>	Seed wash	\$52.50	1 week	15 g seed
Pepper	Anthraco nose, ripe rot	<i>Colletotrichum spp.</i>	Blotter test		2-5 weeks	500 seeds
Pepper	Tobacco mosaic virus	Tobacco mosaic virus	ELISA	\$70.00	1 week	500 seeds
Pepper	Tomato ringspot virus	Tomato ringspot virus	ELISA	\$70.00	1 week	500 seeds
Pepper	Potato spindle tuber viroid (Pstvd)	PSTVd	ELISA	\$355.00	3 weeks	1,000 seeds
Rice	Rice blast	<i>Pyricularia grisea</i>	Blotter test	\$70.00	2 weeks	500 seeds
Rice	Brown leafspot	<i>Drechslera oryzae</i>	Blotter test	\$70.00	2 weeks	500 seeds
Rice	Smut	<i>Tilletia horida</i>	Seed wash	\$52.50	1 week	100 g seed
Safflower	Fusarium wilt	<i>Fusarium oxysporum f. sp. carthami</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Spinach	Leaf spot	<i>Colletotrichum dematium f. sp. spinaciae</i>	Agar plating	\$60.00	2-5 weeks	1000 seeds
Spinach	Verticillium wilt	<i>Verticillium dahliae</i>	Agar plating	\$60.00	2-3 weeks	500 seeds
Sunflower	Verticillium wilt	<i>Verticillium spp.</i>	Agar plating	\$60.00	3 weeks	500 seeds
Sunflower	Fusarium wilt or Stalk rot	<i>Fusarium spp.</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Sunflower	Alternaria leaf blight	<i>Alternatia spp.</i>	Blotter test	\$70.00	3 weeks	500 seeds
Sunflower	Septoria leaf spot	<i>Septoria helianthi</i>	Seed wash	\$52.50	3 weeks	500 seeds
Tomato	Fusarium root rot	<i>Fusarium oxysporum f. sp. radicis-lycopersici</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Tomato	Fusarium wilt	<i>Fusarium oxysporum f. sp. lycopersici</i>	Agar plating	\$60.00	2-5 weeks	500 seeds
Tomato	Tomato mosaic virus	Tomato mosaic virus	ELISA	\$70.00	1 week	500 seeds
Tomato	Tobacco mosaic virus	Tobacco mosaic virus	ELISA	\$70.00	1 week	500 seeds



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Tomato	Tobacco ringspot virus	Tobacco ringspot virus	ELISA	\$70.00	1 week	500 seeds
Tomato	Tomato ringspot virus	Tomato ringspot virus	ELISA	\$70.00	1 week	500 seeds
Tomato	Potato spindle tuber viroid (Pstvd)	PSTVd	ELISA	\$355.00	3 weeks	1,000 seeds
Tomato	Pepino mosaic virus	Pepino mosaic virus	ELISA	\$85.00	1 week	3000 seeds
Wheat and other cereal grain crops	Karnal bunt	<i>Tilletia indica</i>	Seed wash	\$52.50	1 week	250 g seed
Wheat and other cereal grain crops	Dwarf bunt	<i>Tilletia controversa</i>	Seed wash	\$52.50	1 week	250 g seed
Wheat and other cereal grain crops	Flag smut	<i>Urocystis agropyri</i>	Seed wash	\$52.50	1 week	250 g seed
Wheat and other cereal grain crops	All 3 smuts combo test	<i>T.i.</i> + <i>T.c.</i> + <i>U.a.</i>	Seed wash	\$65.00	1 week	250 g seed