

2006 GUIDELINES FOR TOLERANCES OF SEED-BORNE DISEASES IN PULSE SEED INTENDED FOR PLANTING:

(These are guidelines only and should be considered along with farming practices and level of disease risk for the situation.)

CROP	DISEASE (Pathogen)	TOLERANCE AND FACTORS AFFECTING THE LEVEL	SEED TREATMENTS AVAILABLE <sup>1, 2</sup>
FIELD PEA	<p><b>ASCOCHYTA</b></p> <p><i>(Mycosphaerella pinodes,</i></p> <p><i>Ascochyta pinodella,</i></p> <p><i>Ascochyta pisi)</i></p>	<p>Up to 10 per cent ascochyta infection should not significantly affect plant establishment and yield, as long as the seed has good germination, and spring conditions promote quick germination and good seedling vigour.</p> <p>Seed to seedling transmission of ascochyta in pea under field conditions is considered low.</p> <p>In areas where pea production is common, the primary means of infection is air-borne spores from the over-wintering stage of <i>Mycosphaerella pinodes</i> on pea residues.</p>	<p>Vitaflo 280® (active ingredients: carbathiin <sup>S</sup>, thiram <sup>C</sup>)</p>
	<p><b>SEED ROTTS and DAMPING OFF</b></p> <p><i>Pythium sp.</i> and <i>Phytophthora sp.</i></p>	<p>These are soil-borne diseases and are not tested for at seed testing labs.</p> <p>Seed treatment in field pea may be beneficial when planting under cool, moist soil conditions, or if using damaged or cracked seed.</p>	<p>Allegiance FL®, Apron FL® (active ingredient: metalaxyl <sup>S</sup>)</p> <p>Apron Maxx RTA® (active ingredients: fludioxonil <sup>C</sup>, metalaxyl-M <sup>S</sup>)</p> <p>Thiram 75WP® (active ingredients: thiram <sup>C</sup>)</p> <p>Vitaflo 280® (active ingredients: carbathiin <sup>S</sup>, thiram <sup>C</sup>)</p>
	<p><b>SEED ROTTS and SEEDLING BLIGHTS</b></p> <p><i>(Botrytis, Sclerotinia, Rhizoctonia, and Fusarium species)</i></p>	<p><i>Sclerotinia, Rhizoctonia</i> and <i>Fusarium</i> are primarily soil-borne. <i>Botrytis</i> and <i>Fusarium</i> are also often seed-borne and can be tested for at seed testing labs.</p> <p>Up to 10 per cent infection (<i>Sclerotinia</i> + <i>Botrytis</i>) may be tolerable, but will result in significant seedling blight if a seed treatment is not used.</p> <p>The importance of seed-borne <i>Fusarium</i> in seed rot and seedling blight in pulses is not known. Some labs will notify growers if greater than five per cent <i>Fusarium</i> infection occurs. If present, add the <i>Fusarium</i> value to the <i>Sclerotinia</i> + <i>Botrytis</i> value above (not to exceed 10 per cent).</p>	<p>Agrox CD®, Agrox B-2® (active ingredients: captan <sup>C</sup>, diazinon insecticide)</p> <p>Apron Maxx RTA® (active ingredients: fludioxonil <sup>C</sup>, metalaxyl-M <sup>S</sup>)</p> <p>Captan Flowable® (active ingredient: captan <sup>C</sup>)</p> <p>Maxim 480FS®<sup>3</sup> (active ingredient: fludioxonil <sup>C</sup>)</p> <p>Thiram 75WP® (active ingredients: thiram <sup>C</sup>)</p> <p>Vitaflo 280® (active ingredients: carbathiin <sup>S</sup>, thiram <sup>C</sup>)</p>

- <sup>1</sup> New seed treatments are continually being registered. Contact the Agriculture Knowledge Centre at 1-866-457-2377, your local agri-retailer, or industry representative for updated information on seed treatments registered in pulses. SAF's Guide to Crop Protection is available online at: <http://www.agr.gov.sk.ca/Docs/crops/cropguide00.asp> Always refer to the product label before applying product to the seed.
- <sup>2</sup> The level of seed-borne infection is not the only factor to consider in whether or not to apply a seed treatment, as most seed treatments are also effective against soil-borne pathogens. Refer to product label for details.
- <sup>3</sup> Saskatchewan Crop Insurance Corporation will not support claims for ascochyta loss that are made on chickpea fields that had over 0.3 per cent seed infection, and no seed treatment was used. Refer to the SCIC website at: [saskcropinsurance.com/programs/2006/Specialized/NewCrops/Terms\\_Conditions/chickpeas.pdf](http://saskcropinsurance.com/programs/2006/Specialized/NewCrops/Terms_Conditions/chickpeas.pdf)
- <sup>4</sup> Maxim 480FS® is only available to commercial seed treaters.
- <sup>c</sup> Active ingredient has contact mode of action.
- <sup>s</sup> Active ingredient has systemic mode of action.