

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>
CHICKPEA	<p><b>ASCOCHYTA</b> <i>(Ascochyta rabiei)</i></p>	<p>Use seed with less than 0.3 per cent ascochyta infection<sup>3</sup>.</p> <p>Even though a seed test may indicate zero per cent infection, the seed lot may still contain infected seed, and seed treatment is recommended.</p> <p>Seed-to-seedling transmission of ascochyta blight is high in chickpea. The disease is very aggressive and can spread quickly in a field once established, if weather conditions are favourable.</p> <p>Guidelines for ascochyta blight control in chickpea are available at <a href="http://www.agr.gov.sk.ca">www.agr.gov.sk.ca</a> under Crops   Pulses   Pest Control</p>	<p>Apron Maxx RTA® <i>(active ingredients: fludioxonil<sup>C</sup>, metalaxyl-M<sup>S</sup>)</i></p> <p>Crown® <i>(active ingredients: carbathiin<sup>S</sup>, thiabendazole<sup>S,C</sup>)</i></p>
	<p><b>SEED ROTS and DAMPING OFF</b> <i>(Pythium and Phytophthora species)</i></p>	<p>These are soil-borne diseases and are not tested for at seed testing labs.</p> <p>The use of seed treatment is strongly recommended for kabuli varieties since they are very susceptible to these diseases.</p>	<p>Allegiance FL®, Apron FL® <i>(active ingredient: metalaxyl<sup>S</sup>)</i></p> <p>Apron Maxx RTA® <i>(active ingredients: fludioxonil<sup>C</sup>, metalaxyl-M<sup>S</sup>)</i></p>
	<p><b>SEED ROTS and SEEDLING BLIGHTS</b> <i>(Botrytis, Sclerotinia, Rhizoctonia, and Fusarium species)</i></p>	<p><i>Sclerotinia</i>, <i>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>Apron Maxx RTA® <i>(active ingredients: fludioxonil<sup>C</sup>, metalaxyl-M<sup>S</sup>)</i></p> <p>Crown® <i>(active ingredients: carbathiin<sup>S</sup>, thiabendazole<sup>S,C</sup>)</i></p> <p>Maxim 480FS®<sup>4</sup> <i>(active ingredient: fludioxonil<sup>C</sup>)</i></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.