

Disease is often associated with reduced yield and quality in field peas and lentils, but producers may not always see the benefit in applying a fungicide. Conversely, higher seeding rates can be used to potentially increase weed competition and yield in these crops. However, the benefits of fungicide application may vary with plant density, as the potential for disease may increase with a denser crop canopy. A study was conducted at Indian Head to demonstrate the effects of seeding rate and fungicide application on field pea and lentils.

The treatments evaluated were combinations of three seeding rates (low, medium, high) and two fungicide treatments (untreated and fungicide applied) for each of the two crops. The treatments were replicated four times and the study was repeated in 2013 and 2014. The low, medium, and high seeding rates were 130, 260, and 520 seeds/m<sup>2</sup> for lentils, and 50, 100, and 200 seeds/m<sup>2</sup> for field pea. The fungicide application consisted of a 160 mL/ac of Headline at the start of flowering and 160 mL/ac Priaxor 7-10 days later.

Crop conditions were excellent in 2013, but very wet in 2014 resulting in lower than average yields. Field pea yields increased by nearly 30% with fungicide application in 2013 but fungicide did not increase pea yields in 2014 or in lentil in either year. In general, yield increased with seeding rate in both years and both crops; however, the benefit of increased seeding rate appeared to be most prominent when fungicide was applied under higher yielding conditions, in 2013. Under lower yielding conditions such as 2014, there was a greater overall response to higher seeding rates.

