

Effect of Volunteer Wheat on Wheat: An Option to Control It

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Volunteer wheat is a threat in the subsequent wheat crop because it not only may increase the probabilities of diseases and insect pests but may interfere with the yield components of the seeded crop as well. In this work we studied the effect of volunteer wheat on the yield components of a seeded winter wheat crop. The data were collected in a no till annual winter wheat field at the Pendleton Ag. Research Center comparing six places where chaff rows produced a lot of volunteer wheat to where there were few volunteers. Our preliminary results, with only one year of data, indicated that the areas with chaff row had, on average, 7.3 volunteer plants per square foot more than the areas without the chaff row. The higher infestation in the chaff row decreased significantly the yield and yield components of the seeded crop. We propose chaff collection as a promising practice to increase desired crop yield in those areas.



Figure 1: View of the experiment area

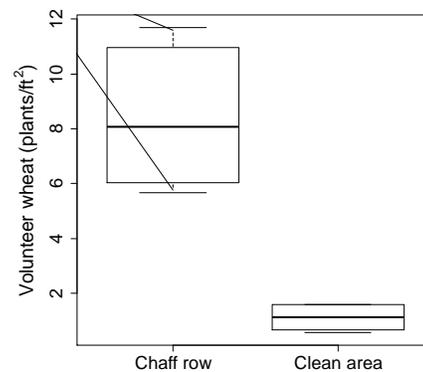
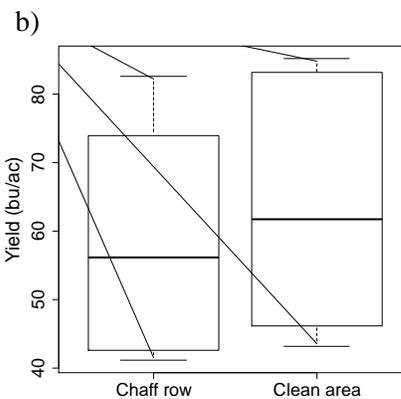
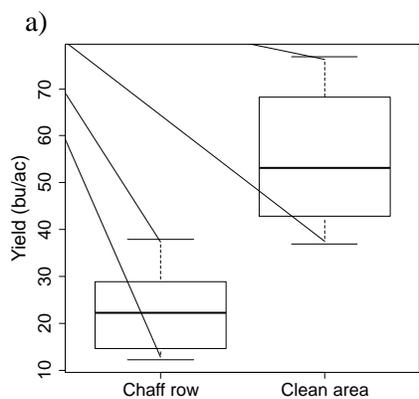


Figure 2: Presence of volunteer wheat plants in the chaff row in comparison with areas outside of the chaff row



The higher infestation in the chaff row decreased the yield and yield components of the seeded crop (Figure 3a). However, if we consider total yield (seeded and volunteer), the difference is not significant (Figure 3b).

Figure 3: Effect of volunteer wheat density on seeded winter wheat yield (bu/ac)

Note: This work was presented as a poster at the PNW direct seed association annual meeting 2016.