Even with this year's rains, grasshopper activity has been high in many parts of Nebraska.

With the upcoming planting of winter wheat, growers need to consider options to manage potential grasshopper problems as winter wheat is establishing this fall.

Grasshoppers decimated seedling plants in the borders of this field. Large numbers of grasshoppers in areas surrounding wheat fields threaten seedlings as they emerge.

Emerging winter wheat has very limited foliage and grasshoppers can easily keep the wheat clipped back completely, causing stand losses in the field margins.

Grasshopper populations decline through the late summer and fall, but they can remain in significant densities until after the first hard freeze.

Growers need to monitor grasshopper densities in areas surrounding wheat fields both before and after planting. Normal threshold densities in areas surrounding cropland need to be lowered because of the damage potential.

Densities in the range of 11-20 per square yard in non-crop borders surrounding newly planted wheat fields may be enough to cause significant loss.

If grasshopper densities are extreme, it is difficult to completely eliminate the damage in emerging wheat.

However, several options are available to help reduce the risk and/or manage the problem.

Avoid early planting in areas of high grasshopper activity. Planting higher risk fields near the end of the optimum planting window will reduce the time that a field will need to be protected from grasshoppers in the fall.

Increase the seeding density of wheat in field margins. This may compensate for partial stand loss, and allow for a reasonable stand after grasshopper damage has run its course.

Gaucho and Cruiser seed treatments provide protection from emergence and treatment can be easily limited to treating only the field margins to reduce costs.

These treatments will be effective for moderate grasshopper densities, but they will likely not hold up under severe grasshopper pressure.

These seed treatments are only available through a certified seed treater so advanced planning is necessary when ordering seed.

Also, to be most effective the highest registered rate of product must be applied to the seed.

Several foliar insecticides can be used to treat wheat for grasshopper control; however, treatment of the emerging wheat crop will result in little residual activity of the product because of the restricted leaf area for insecticide deposition.

The best option is to treat the borders around the wheat fields to prevent the grasshoppers from moving into the wheat fields. If the surrounding area is non-crop area, the best treatments to control adult grasshoppers would be Warrior (or other lambda-cyhalothrin products) and Asana (or other esfenvalerate products).

If the area surrounding the field is pasture, the best products would be Warrior or Mustang MAX. Warrior is the only product that can be used in non-crop areas, pasture, and wheat.

To make the most of your residual control when treating borders surrounding wheat fields, apply the border control one to two days before the wheat will emerge.

Furadan 4F is registered for use as a planting-time border treatment under a Special Local Needs (SLN) label.

EPA has announced that tolerances for Furadan in wheat will expire at the end of this year. Existing stocks of Furadan can be used through the end of this year.

The major drawback of Furadan is its safety to the applicator. It is important to be aware of the safety precautions when using this product.

Furadan should be injected through a closed system directly into the furrow through a microtube or with liquid fertilizer. This injection equipment is expensive, but will reduce safety concerns. Furadan provides protection for the emerging seedling and does not need water for activation.

Grasshopper control around wheat fields can be challenging and the level of effectiveness for any control option will depend largely on the density of grasshoppers.

Under very heavy pressure none of the control options will be completely effective, and the loss of some stand on the field margins may be inevitable.

If grasshopper damage reduces stand in the field margins, these areas can be replanted later in the fall after the first hard freeze and grasshopper populations have declined.

Grasshopper control in winter wheat will likely be a compromise between effective control and affordability.