Season long weed control is important to reduce competition early in the season when potatoes are small and late in the season to reduce complications with harvest. The experiment objectives are to establish crop tolerance and evaluate season long control of newly registered herbicides.

**Materials and Methods.** A total of thirteen separate treatments replicated four times have been used for this study. List of treatments are below. The potatoes were planted February 7, 2012. Preemergence applications were applied March 2, 2012, before crop emergence and after boarding off. Postemergence herbicides were applied March 30, 2012 - after the final fertilizer layby treatment and plants were 12- 15” tall. Crop injury and yield will be evaluated at the Tri-county Partnership, Cowpen Branch. A separate crop tolerance and weed control study will be conducted at Blue Sky Farms.

**Treatments:**
1. Weed Free Control
2. Weedy Control
3. Reflex 1 pt. PRE
4. Reflex 2 pt. PRE
5. Dual Magnum 1pt. PRE
6. Dual Magnum 1.5 pt. PRE
7. League 5 oz. POST
8. League 6 oz. POST
9. Reflex 1 pt. PRE fb. League 5 oz. POST
10. Reflex 2 pt. PRE fb. League 5 oz. POST
11. Dual Magnum 1 pt. PRE fb. League 5 oz. POST
12. Dual Magnum 1.5 pt. PRE fb. League 5 oz. POST
13. Prowl H2O 1.5 pt. & Sencor DF 4 oz. PRE
14. Dual Magnum 1 pt. & Reflex 1 pt. PRE
15. Boundary 1.5 pt. & Reflex 1 pt. PRE
*fb. – followed by

**Results and discussion.** The only injury observed was slight burning of the leaves from Reflex as a result of insufficient soil coverage. No differences were measured for yield.

In 2013, the primary weed was nutsedge. The greatest control was Reflex at 2 pt. and Dual Magnum at 1 pt. No additional weed control tank mixing the two herbicides. League POST provided excellent late season control of the nutsedge.

In 2014, the primary weed was large crabgrass. All the preemergence herbicides provided excellent weed control through the entire season. League did not control the large crabgrass.

A late season POST application is important for control of weeds, however, this is dependent on the weed spectrum in the field. A POST application should include sufficient time for a preharvest interval.

**Figure 1.** Reflex injury due to insufficient soil cover the plant.
Figure 2. Nutsedge control in potato in 2013.

Figure 3. Nutsedge control in potato in 2013.
Figure 4. Nutsedge control at 14 days after application in 2013

- Dual Magnum 1 pt.
- Reflex 1 pt.
- Nontreated