

Soybean response to crop rotation, Wishek, 2006. (Greg Endres and Tim Indergaard)

A field study was initiated in 2003 at the Tri-county trial site near Wishek by the NDSU Carrington Research Extension Center to examine the performance of continuously-grown soybean compared to soybean grown on the previous year's wheat ground. In 2006, inoculated 'RG200RR' soybean was direct-planted into standing stubble in a dryland, loam soil at 200,000 pure live seeds/acre in 7-inch rows on May 23 with previous crop history of three years of soybean or alternating wheat and soybean (wheat in 2005). Experimental design was a randomized complete block with four replications. The trial was harvested with a plot combine on September 20.

Seed yield tended to be higher with soybean grown on wheat ground compared to yield with four years of continuous soybean (Table). Seed size was larger with wheat as the previous crop versus continuous soybean.

Table.

Treatment	Seed yield bu/A	Test weight lb/bu	Seeds/lb	Oil %	Protein %
soybean	17.5	57.2	2768	17.4	41.3
soy/wht	21.7	57.1	2657	17.4	40.7
LSD (0.05)	NS	NS	101.0	NS	NS
CV	19.6	0.9	1.7	1.5	1.8
mean	19.6	57.2	2712	17.4	41.0