

## **Technological Features of the Winter Wheat Crop Farming in the Conservation Agricultural System, at The Agricultural Research - Development Station Turda**

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### **SUMMARY**

Currently, conservative work, defining a wide variety of processes, (Gus, et al.,2008); between traditional or conventional farming system and the agriculture conservative system (no tillage) the intervention on the ground is minimal, there are plenty of tillage methods, specific to certain working conditions, equipment machinery or even tradition.

Designed and conducted compared experiment to ARDS Turda, includes two ways to work the soil, a conventional classical (with plowing, soil preparation and planting) in parallel with the conservative system ("no tillage"), in a 3-year rotation with: wheat - soy - maize with experimental versions that include technological measures that help to control the plant vegetation of experiment, namely: fertilization (two graduations) and treatments (four graduations applied in four specific phenophase, after a sketch by 4,3 and 2 treatments with various combinations of pesticides). Complex treatments are absolutely necessary given that the only way to control diseases, weeds and pests. From this perspective the system is only applied to new elements of sustainable agriculture (Carlier et al. 2006). It was cultivated wheat variety Arieșan (created in ARDS Turda).

Results in complex experiment shows that in ARDS Turda conditions in normal years in terms of climate on winter wheat grown in conservation agriculture system can achieve higher yields than conventional farming system; but when problems occur related to climate (heat, lack of precipitation) conventional farming system proved superior. In the three experimental years, in average, both the classic and conservative farming system in fertilization supplementation with N50P30 led to production increases 16.9% in the classical and 11.5% in the conservative farming system, the differences being statistically significant, in average on across the experimental system was realized an increase of production of 342 kg / ha, but between treatments applied were not recorded

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