Algorithm for post-processing of yield monitor data. (S04-dobermann091140-Poster)

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Abstract:

Yield maps, generated from yield monitors, are the most common source of information for site-specific crop management. However, several errors are generally introduced through the yield monitor and the way in which the harvester is operated. Among these sources of errors are: (a) low yield values that occur when the harvester is filling up at the start of a harvest run or emptying at the end of a harvest run, (b) loss of sensor signal, (c) narrow strips, and (d) unrealistic yield values calculated from yield flow, distance traveled and moisture content. We propose a post-processing algorithm for correcting or removing the above sources of errors in the generation of yield maps. We assume that the positional data are differentially corrected and that the yield monitor lag time is known. A PC program was developed utilizing the algorithm. The method is illustrated using AgLeader yield monitor for two irrigated corn fields in Nebraska. Results show improvement in the distribution of yield from a highly-skewed to a near-normal distribution. The method also removes spikes and troughs in the resulting yield maps.

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Presentation Information:

Presentation Date: Tuesday, November 12, 2002
Presentation Time: 9:00-11:00 am
Poster Board Number: 1528

Keywords:

yield mapping, soil mapping, on-the-go sensors, software