

# Precision Agriculture Workshop

## Exercise 3

### *Yield Monitors*

Identify main components of a yield monitor system using the classroom display. In groups of five simulate four passes with different combinations of grain flow, swath width and travel speed. Observe the simulated yield map after downloading the file on the card.

Using information below, what is the instantaneous “dry” yield (in bu/acre) if advance text export option resulted in a file with the following line:

**96.493786,41.167481,4.76,907257742,2,106,240,11.3,33,2,980415,"F42:SITE\_1","L1:","Soybeans",7,0,1162.8**

*Example:* -96.430003,41.162799,12.52,1002057029,2,142,240,9.3,33,1,980415,"F22:4.92SE","L1:","Soybeans",7,0,1177.2

Field	Value	Meaning
1	-96.430003	Geographic longitude in decimal degrees
2	41.162799	Geographic latitude in decimal degrees
3	12.52	Grain mass flow in lb/s
4	1002057029	GPS time
5	2	Logging interval
6	142	Travel distance during a logging interval in inches
7	240	Swath width in inches
8	9.3	Grain moisture (%)
9	33	Header position (Down)
10	1	Pass
11	980415	Monitor ID
12	“F22:4.92SE”	Field ID
13	“L1”	Load ID
14	“Soybeans”	Crop
15	7	GPS Satellites
16	0	PDOP (position dilution of precision)
17	1177.2	Altitude in ft

1 ft = 12 in

1 bu = 60 lbs

1 acre = 43560 ft<sup>2</sup>