

# **2014 Crop Management Diagnostic Clinics – Precision Ag**

## **SHARDA**

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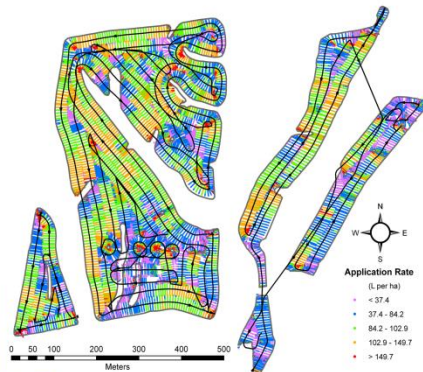
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## Cast Study: Factors Affecting Spray Errors

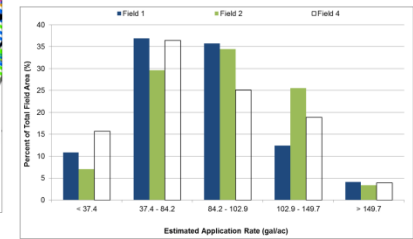
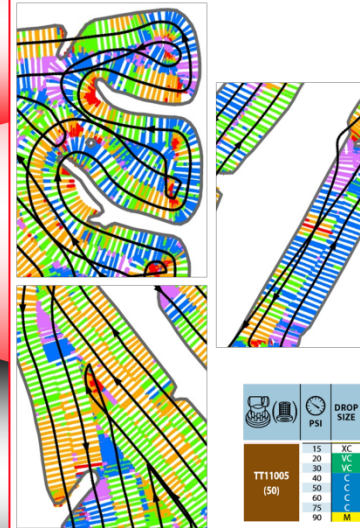
Field study:

- AgChem RoGator 1074 with 100 foot boom
- Topcon X20 control system
- Capstan nozzle solenoids
- 15 pressure transducers
- TeeJet TT11005 nozzles



## Potential Causes of Off-Rate Errors

- Turning
- Boom section actuation
- Speed and acceleration



TT11005 (50)	PSI	DROPSIZE	CAPACITY ONE NOZZLE IN GPM	CAPACITY ONE NOZZLE IN GZ/MIN.	20'										
					GPA					GALLONS PER 1000 SQ. FT.					
					4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH
15	XC	0.31	40	23	184	15.3	11.5	9.2	7.7	6.1	4.6	1.1	0.70	0.53	0.42
20	VC	0.35	45	26	21	17.3	13.0	10.6	8.7	6.9	5.2	1.2	0.79	0.60	0.48
30	VC	0.43	55	32	26	21	16.0	12.8	10.6	8.5	6.4	1.5	0.97	0.73	0.58
40	C	0.50	64	37	30	25	18.6	14.9	12.4	9.9	7.4	1.7	1.1	0.85	0.68
50	C	0.56	72	42	33	28	21	16.6	13.9	11.1	8.3	1.9	1.3	0.95	0.76
60	C	0.61	78	45	36	30	23	18.1	15.1	12.1	9.1	2.1	1.4	1.0	0.83
75	C	0.68	87	50	40	34	25	20	16.8	13.5	10.1	2.3	1.5	1.2	0.92
90	M	0.75	96	56	45	37	28	22	18.6	14.9	11.1	2.6	1.7	1.3	1.0

2014CMDCPrecisionAg-SHARDA (1)

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