

Experiment No. : PDM 02
Focus : Effects of different water regime and nitrogen management on sheath blight of rice
Duration : Dry Season 2015
Lead : Dr Adam H Sparks
Staff : Dr Nancy Castilla, Michael Noel, Paul Escandor
Group : Plant Disease Management
Update : 8 May 2015

1. SCHEDULE

Dry season 2015 (December 2014 – April 2015)

Date		DAS	DAT	DAI	Activity
16 Dec	T				: Land preparation
18 Dec	Th				: Soaking of seeds (Rc 222)
19 Dec	F	0			: Sowing in trays (Rc 222)
26 Dec	F	7			: First harrowing
5 Jan	M	17			: Final harrowing;
					Basal fertiliser application
9 Jan	F	21	0		: Transplanting (Rc 222);
					Molluscicide application
20 Jan	T	32	11		: Inoculum preparation (<i>Rhizoctonia solani</i>)
29 Jan	Th	41	20	0	: Broadcast inoculation
30 Jan	F	42	21	1	: Start AWD monitoring
3 Feb	T	46	25	5	: Fertiliser application (active tillering)
12 Feb	Th	55	34	14	: Disease assessment (1 st)
20 Feb	F	63	42	22	: Disease assessment (2 nd)
5 Mar	Th	76	55	35	: Disease assessment (3 rd)
19 Mar	Th	90	69	49	: Disease assessment (4 th)
1 Apr	W	113	82	62	: Disease assessment (5 th)
22 Apr	W	134	103	83	: Disease assessment (6 th)

2. METHODOLOGY

Design of the experiment:

Design	: Split-plot
Main plot	: Water management (2) W ₁ – Flooded/Farmer's Practice (FLD) W ₂ – Alternate Wetting and Drying (AWD)
Sub-plot	: Nitrogen management (3) N ₀ – No fertiliser application N ₁ – 120 kg/ha (Rice Crop Manager recommendation) N ₂ – 150 kg/ha (high N rate)
Replication	: Four (4)
Sub-plot size	: 4m × 13m (52 m ²)
Main plot size	: 13.8m × 14.2m (195.96 m ²)
Replication size	: 13.8m × 29.4m (405.72 m ²)
Experiment size	: 28.6m × 59.8m (1,710.28 m ²)
Location	: UL8 (1,783 m ²)

Nitrogen management:

Nitrogen treatment	Total nitrogen (kg/ha)	Total nitrogen per plot (kg/52 m ²)	Split nitrogen fertiliser application (kg/52 m ²) using Urea (46-0-0)		
			Basal	Active Tillering	Panicle Initiation
N ₀	0	0	0	0	0
N ₁	120	0.624	0.68	0.34	0.34
N ₂	150	0.780	0.68	0.51	0.51