

# EBD

ENVIROMENTAL BALANCE DEVICE  
EXPERIMENT

## EXPERIMENT

*Environmental Balance Device (EBD)*

## SITE INFORMATION

*Kampung Kubang Anak Gajah, Pendang, Kedah*

*4300 sq meter area*

*Latitude: 5 ° 58'46.72"N*

*Longitude: 100 ° 26'48.74"E*



## OTHER INFORMATION

Rice Variety: NMR152

Management: MADA Package

Date of Transplanting: 30 May 2016

Soil sampling: Before & after planting

# ENVIRONMENTAL BALANCE DEVICE



7 May 2016



**EBD Installation: 40 meter interval**

26 Jun 2016 (26 DAT)



16 July 2016 (46 DAT)



8 Aug 2016 (68 DAT)



23 Aug 2016 (83 DAT)



# Yield Performance

PLOT OWNER	TREATMENTS	TOTAL YIELD (KG)	TOTAL SIZE (RELUNG)	YIELD/RELUNG (KG)	YIELD/HA (KG)
SUSKERI (tanam) (anggaran 25% rebah)	U,V,N,M,W	36210	26.5	1366	5124
HASSAN (tanam) (anggaran 30% padi angin)	E,F,G,J,H	38500	28.5	1351	5066
Hj Harun (tanam)	C,D	15160	9	1684	6317
Helmi	Q,I	9905	6.5	1524	5714
Suskeri (tabur)		93120	61	1527	5725
Hassan + others (tabur)		209660	124	1691	6341
JUMLAH		402555	256	9143	34286
PURATA				1524	6857
Helmi	EBD	4495	1.5	2997	11238

# Result Soil Analysis

Treatment	Available P (ppm)	Total N (%)	Available K (me 100 g/soil)	Organic C (%)	pH	CEC (me 100 g/soil)	C/N ratio
Control(Pre)	5.1	0.18	0.28	2.3	5.2	21.7	12.8
Control (Post)	7.5	0.22	0.26	1.83	4.8	23.4	8.3
EBD (Pre)	8.6	0.32	0.38	2.59	5.6	28.9	8.1
EBD (Post)	6.4	0.25	0.33	3.62	6.7	32.3	14.5

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## **CONCLUSION**

1. EBD plot showed better yield (more than 60%) compared to control plot & average yield
2. EBD treatment improved soil nutrient availability in soil before planting
3. EBD treatment probably improved plant nutrient uptake (need further evaluation using isotopic techniques)
4. EBD treatment reduced weeds growth significantly

## WAY FORWARD

1. 2<sup>nd</sup> trial at IADA Rompin, Pahang – July 2017
2. Need bigger and replicate plots for reliable scientific/statistic evaluation

