



PRIME

# **PRE-SEMESTER BULLETIN**

July 2018 to June 2019



**REGION II – Cagayan Valley Region**

# AT A GLANCE

Table. Mean incidence of pest injuries, count of insect pests, and percentage of weed cover by month.

Region II

	2018						2019					
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
<b>A. FOLIAR DISEASES</b>												
Bacterial leaf blight	0.4	0.7	0.6	1.2	0.0	0.0	0	0.2	0.8	2.1	0.2	0.1
Bacterial leaf streak	0.5	1.4	1.9	2.7	0.3	0.1	0.0	0.5	0.2	0.9	0.1	0.1
Brown spot	1.6	0.9	0.9	1.1	0.4	0	0.0	0.6	1.0	2.4	0.4	0.3
Leaf blast	0.1	0.6	0.4	0.1	0	0	0.0	0.4	0.3	0.5	0.3	0.2
Red stripe	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0	0.0
<b>B. DISEASE OR PEST INJURY ON TILLERS</b>												
Deadheart	0.6	0.7	0.6	1.0	0.1	0	0.0	0.3	0.5	1.6	0.2	0.2
Sheath Blight	0.0	0.4	0.3	0.6	0.2	0	0	0.1	0.1	1.5	0.2	0
<b>C. DISEASE OR PEST INJURY ON PANICLES</b>												
Neck Blast	0.1	0.1	0.5	0.4	0	0.0	0	0	0.2	1.0	1.0	0
Whitehead	2.0	0.4	0.4	1.2	0	0.2	1.2	0.1	1.3	0.9	1.3	2.4
<b>D. SYSTEMIC DISEASE OR PEST INJURY</b>												
Bugburn	0	0	0	0.0	0	0	0	0	0	0	0	0
Hopperburn	0	0	0.2	1.4	0	0	0	0	0	0	0	0
Tungro	0	0	0	0	0	0	0	0	0	0	0	0
<b>E. INSECT COUNT</b>												
Brown Plant Hopper	0.0	0.0	3.4	0.7	0.0	0	0	0.0	0.4	0.3	0	0
Green Leaf Hopper	0.1	0.1	0.4	0.2	0.0	0	0	0.0	0.1	0.1	0.1	0
Rice Black Bug	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.4	0.0
Rice Bug	0.0	0.4	0.8	0.7	0.1	0.1	0.1	0.2	0.2	0.6	1.1	1.2
Rice Grain Bug	0.1	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0
<b>F. RODENT INJURY</b>												
	0.1	0.1	0.1	0.0	0	0.1	0.0	0.1	0.0	0.1	0	0
<b>G. WEED COVER</b>												
	1.2	1.1	1.2	0.7	0.2	2.3	0.0	0.8	0.9	1.1	0.1	0.5

LEGEND  1-5%  5%

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

# Monitored fields and data collectors

<b>Municipalities surveyed:</b>	Cagayan: Amulung, Ballesteros, Buguey, Claveria, and Solana Isabela: Cabatuan, Cauayan City, Roxas, Santiago City Nueva Vizcaya: Solano, and Villaverde Quirino: Diffun
<b>Monitoring date:</b>	July 2018 - June 2019
<b>Number of monitoring fields:</b>	247 monitoring fields
<b>Data collectors:</b>	Aida Maramag, Amedita Ampe, Arnold Masin, Cenon Mallilin, Daisy Labang, Demetrio Batuon, Edith Cortina, Eloisa Milla, Ferdinand Enriquez, Joneline Bag-oyen, Linda Tulauan, Melvic Gibe, Thomas Ibarra, and Wilbert Crisologo

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

# Growth stages

Most of the monitored fields in the second semester of 2018 were at the vegetative stage in July and August and the peak of harvest was in October 2018 (Figure 1). Crop establishment of most of the monitored fields during the first semester of 2019 occurred in January to February and most of the fields were harvested in March 2019. A large proportion of the fields were fallow in April to June 2019.

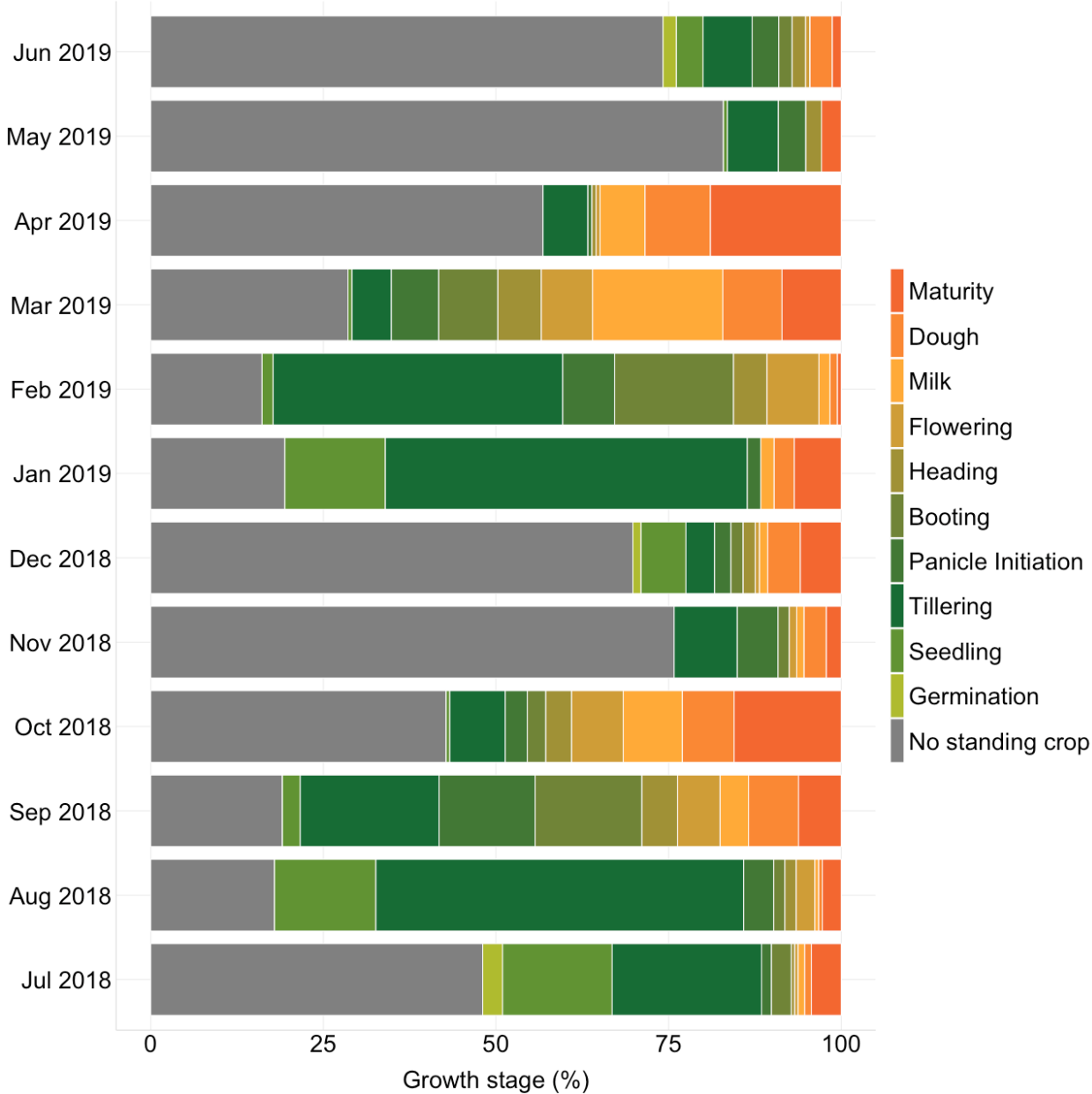


Figure 1. Proportion of crop growth stage of fields by month.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

Box plots, also known box-and-whisker plots, are presented to facilitate the visualization of the distribution or range of collected data (Figures 2 to 8). The black closed circle in or near each bar represents the mean of each pest injury. The black vertical line in each bar represents the median which refers to the midpoint of the range of data. Since it is not affected by extreme values or outliers like the mean, the median represents the most common value of a variable.

## A. Foliar diseases

The highest mean bacterial blight incidence of 2% was observed in April 2019, but the median incidence was 0 in all months (Figure 2). The highest mean and median incidences of bacterial leaf streak of 3% and 1%, respectively, were observed in October 2018. The mean incidence of bacterial leaf streak was higher in the second semester of 2018 than in the first semester of 2019. The median of bacterial leaf streak incidence was 0 in 10 months. The highest mean brown spot incidence of 2% was observed in April 2019 but the highest median incidence was only 0.44% and the median was 0 in almost all of the months. The incidence of leaf blast and red stripe was negligible.



Figure 2. Incidence of foliar diseases in Region II, July 2018 to June 2019.

## B. Insect pest injury and disease on tillers

The highest mean incidence of deadheart and sheath blight of 2% was observed in April 2019 and the median was 0 in all months (Figure 3).

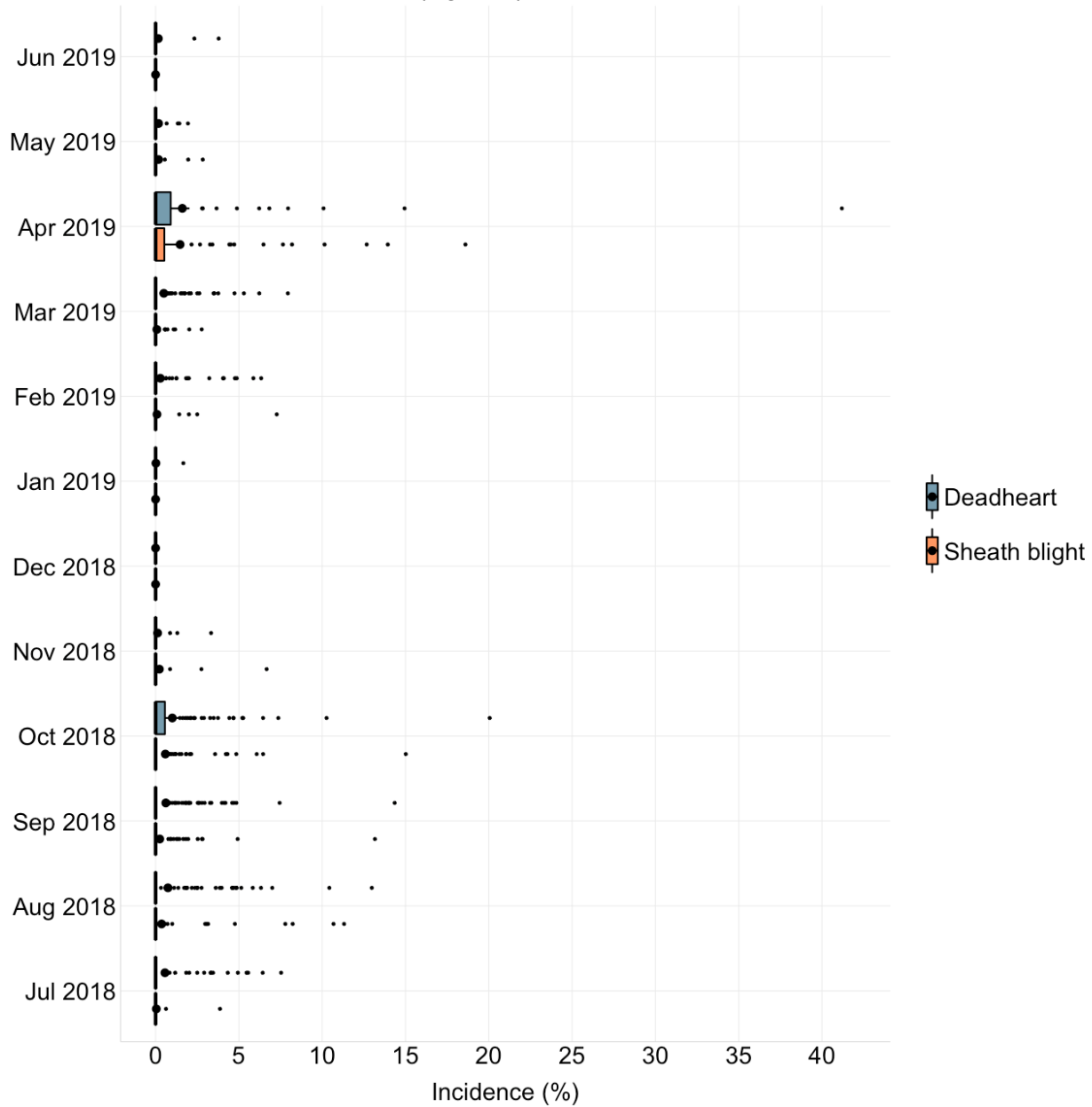


Figure 3. Incidence of deadheart and sheath blight in Region II, July 2018 to June 2019.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

### C. Insect pest injuries and diseases on panicles

The incidence of neck blast and whitehead caused by stemborer was negligible (Figure 4). The highest incidence of whitehead was 2% was observed in July 2018 and June 2019. Most of the monitored fields in July 2018 were at vegetative stage and those in June 2019 were fallow, indicating that whitehead was observed on plants that were established late.

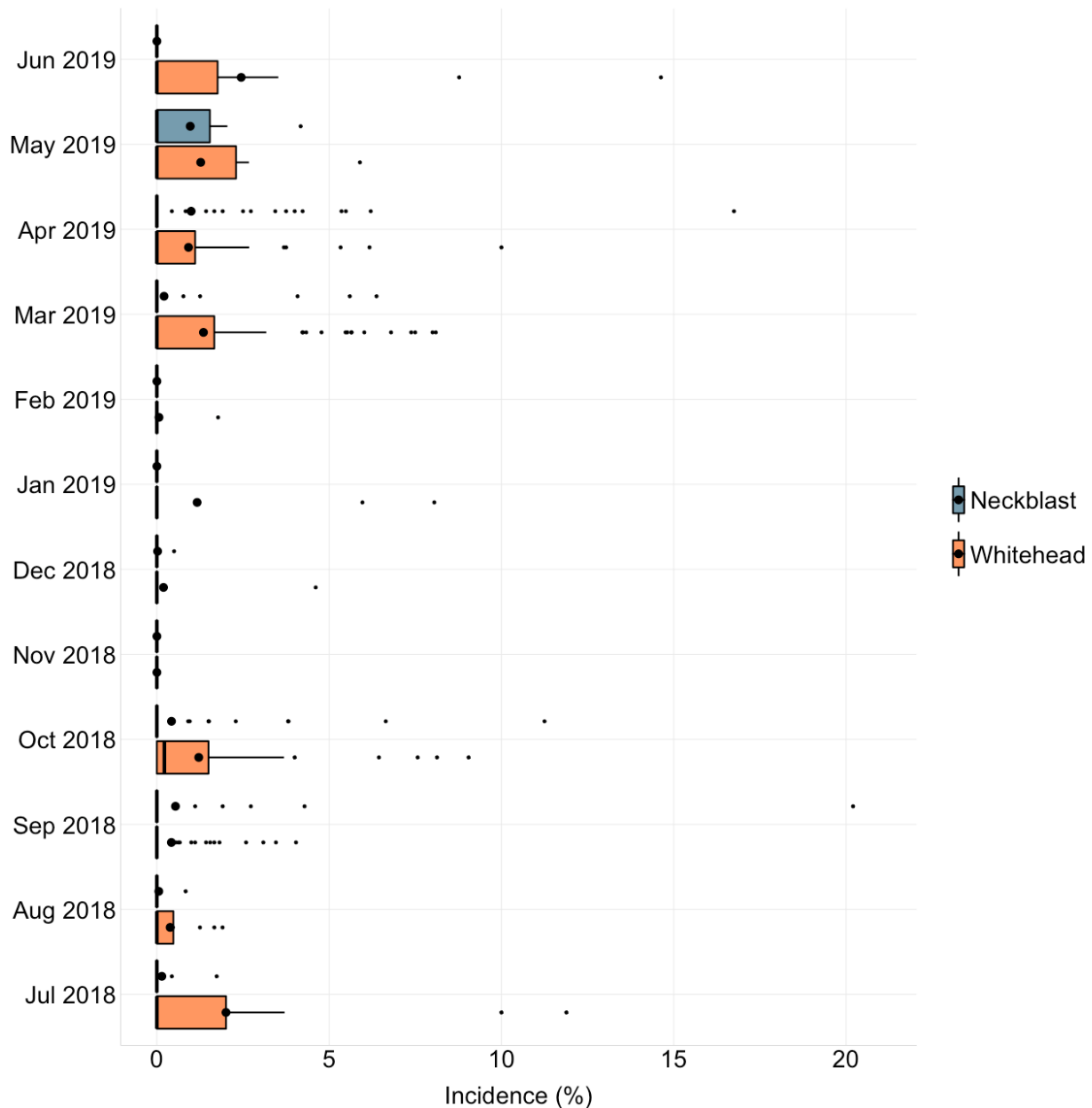


Figure 4. Incidence of neck blast and whitehead in Region II, July 2018 to June 2019.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## D. Systemic insect pest injuries and diseases

The incidence of bugburn, hopperburn and tungro during the year was negligible (Figure 5).

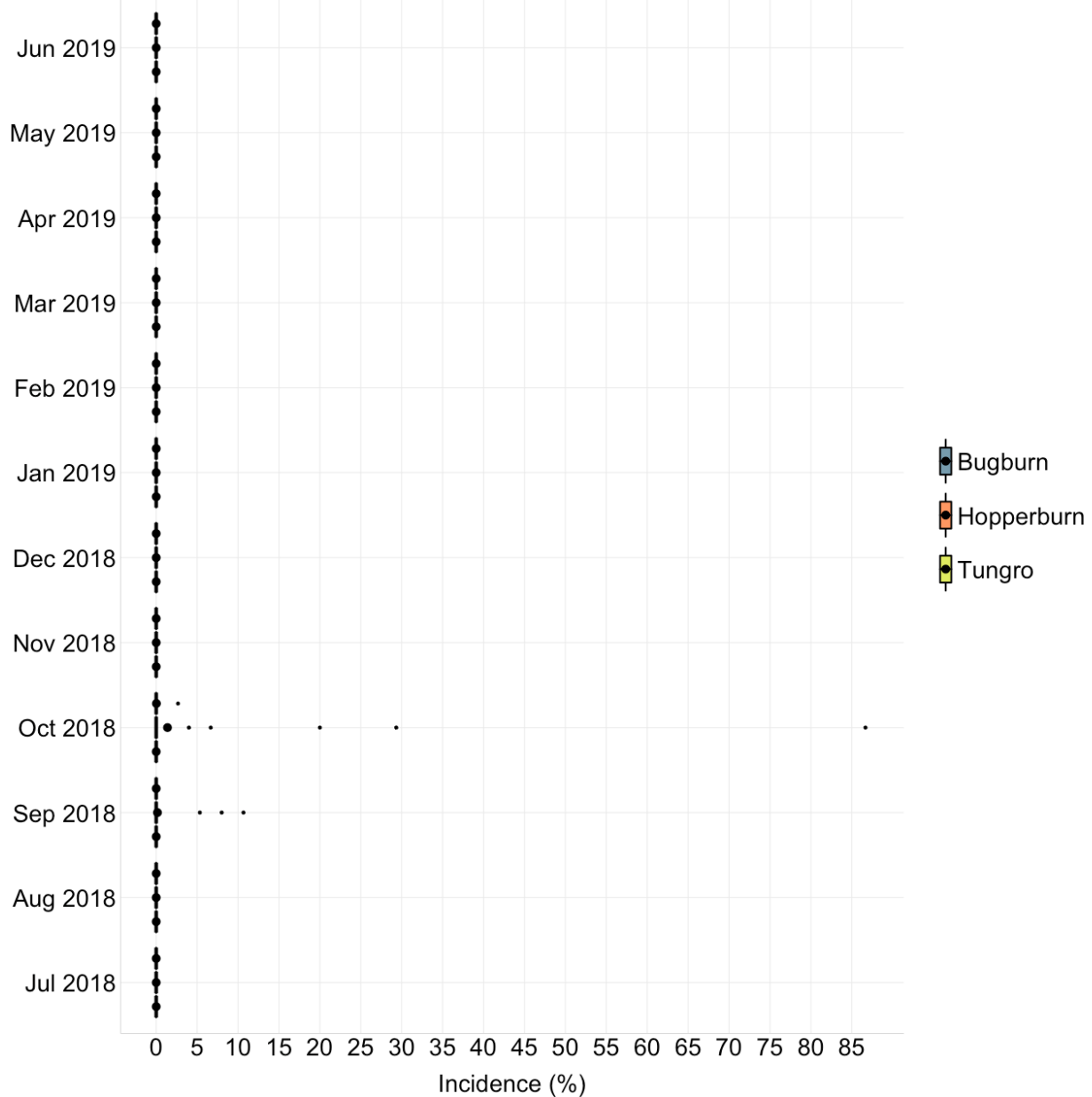


Figure 5. Incidence of bugburn, hopperburn and tungro in Region II, July 2018 to June 2019.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.



## E. Count of insect pests

A mean of three brown planthoppers (BPH) were observed per square meter in September 2018 (Figure 6). More than five BPH per square meter was observed in seven fields in this month. The count of the other insect pests in all months was negligible.

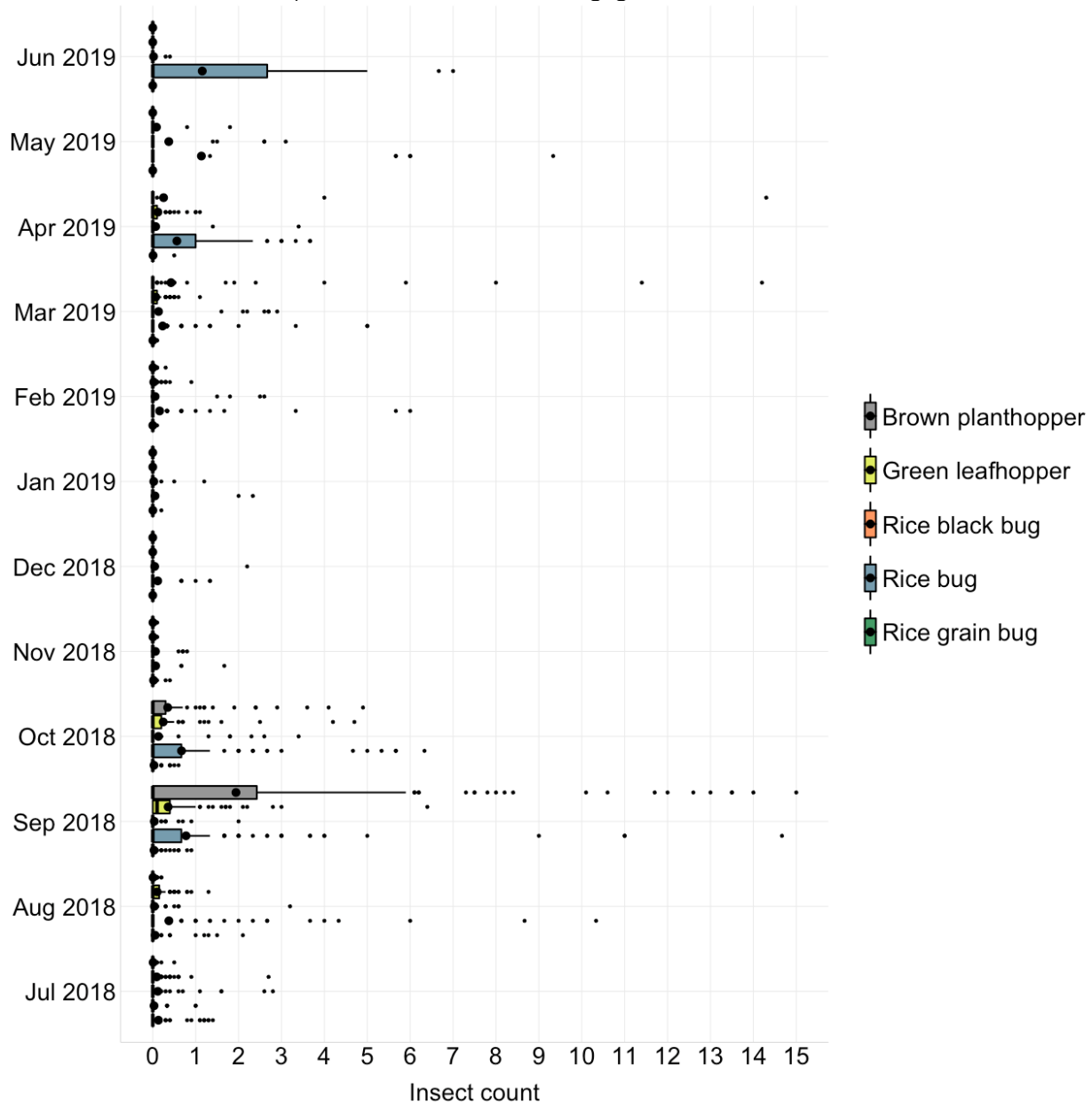


Figure 6. Count of insect pests in Region II, July 2018 to June 2019

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## F. Rat injury

The incidence of rat injury was negligible during the season (Figure 7).

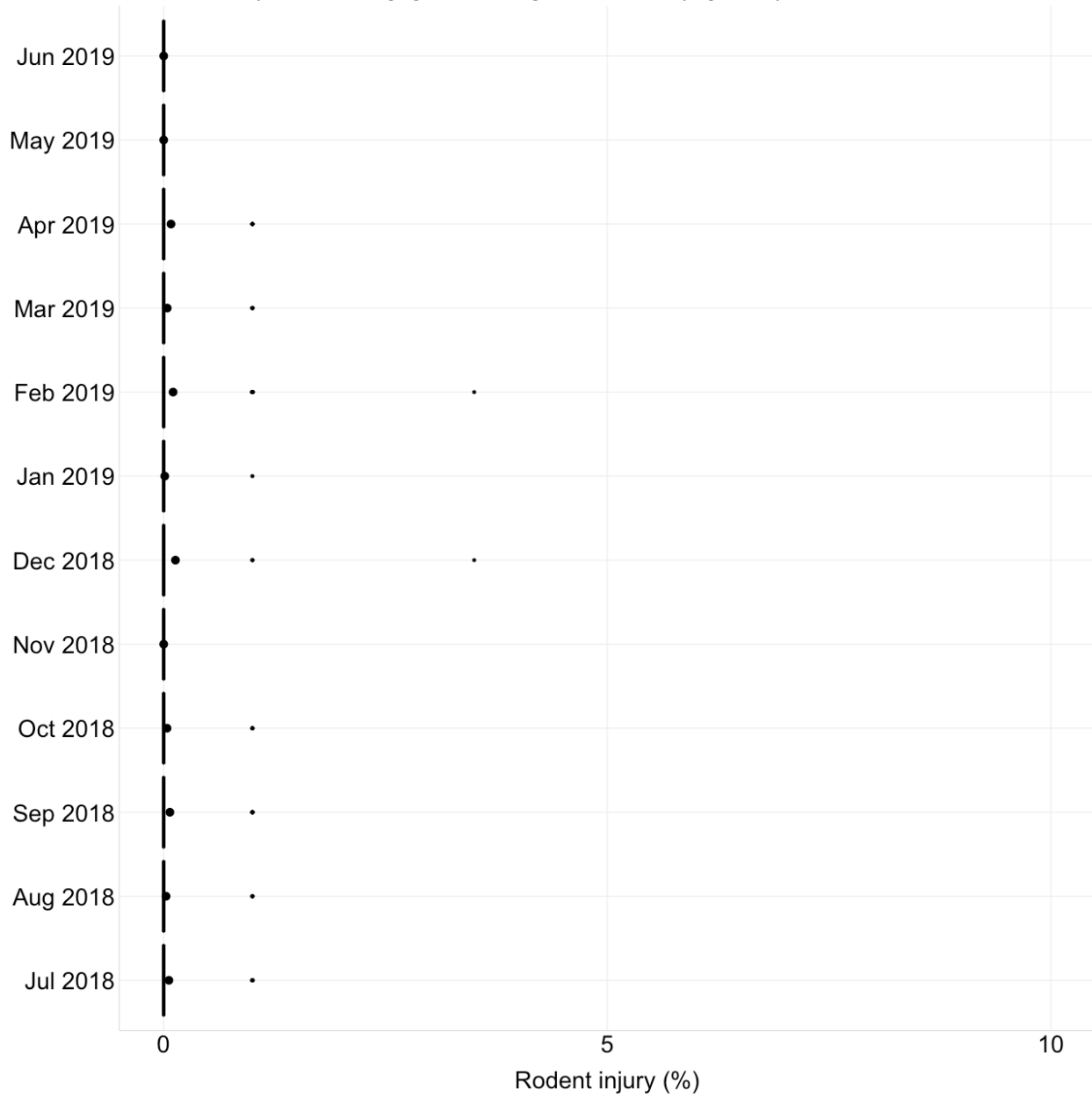


Figure 7. Incidence of rat injury in Region II, July 2018 to June 2019

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## G. Weed cover

The highest percentage of weed cover of 5% was observed in November 2018 and May 2019. The percentage of weed cover during the year was generally negligible (Figure 8).

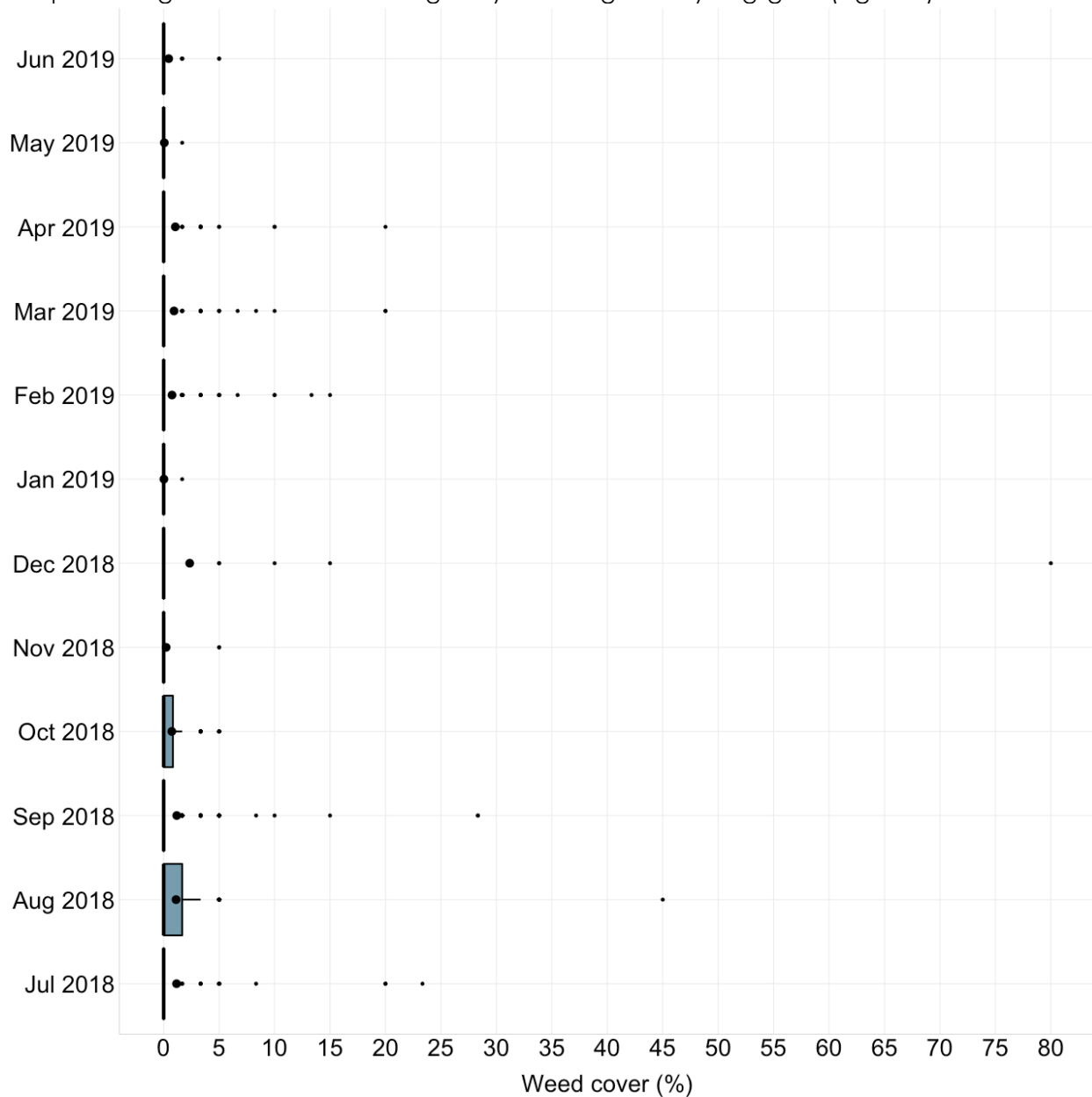


Figure 8. Percentage of weed cover in Region II, July 2018 to June 2019.

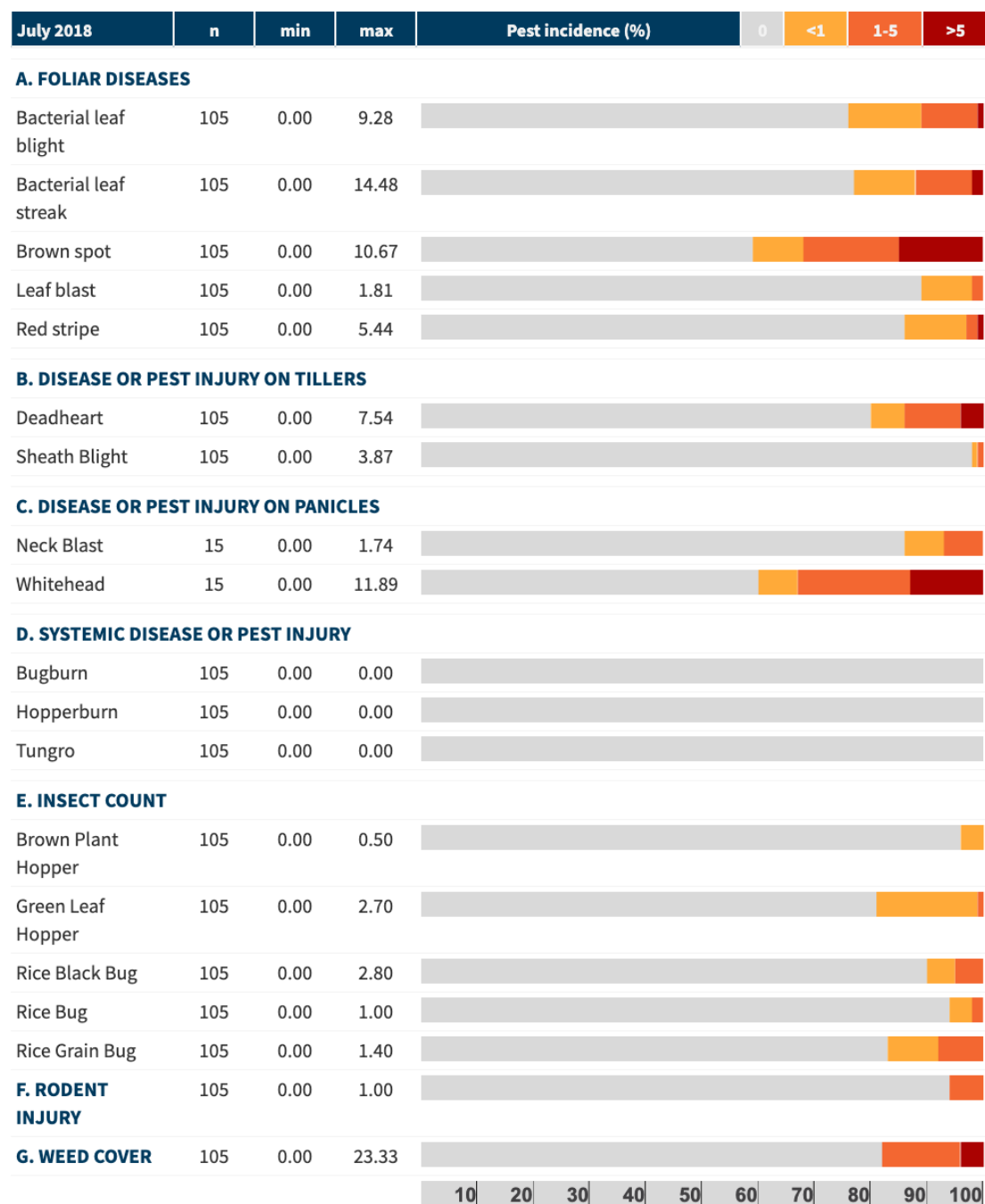
Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

# Management of major pests

This section describes the management of the most important pests during the reporting period. A pest is operationally considered important if the mean incidence of injury (for insect pests and diseases) or percentage of cover (for weeds) in at least one month was at least 5%, or in the case of insect pests, the count was at least 5 per square meter. No management recommendation is provided during this period because the mean incidence of all pest injuries and percentage of weed cover was lower than 5% and count of insect pests was lower than 5 in all months.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

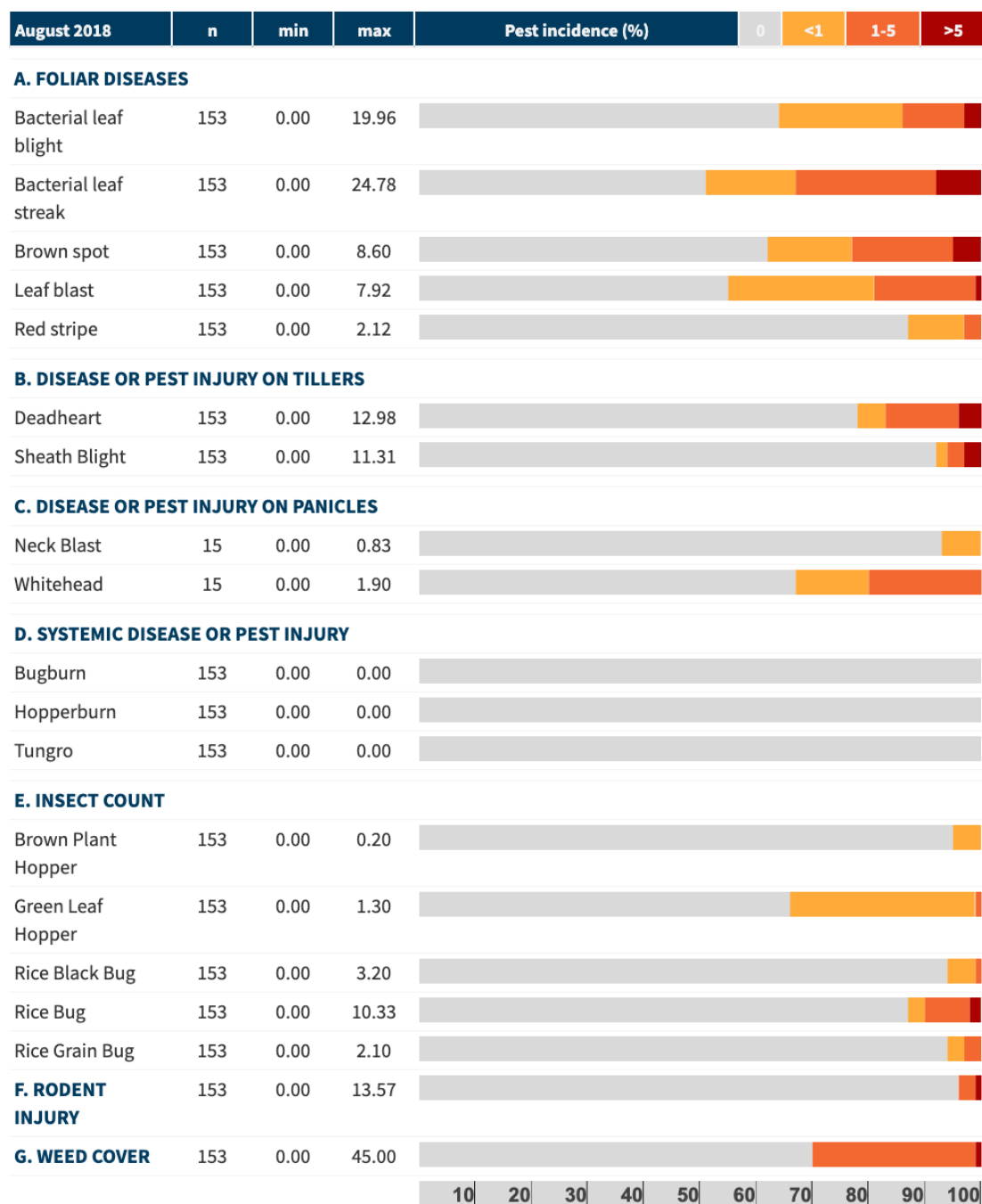
## Region II



Annex Figure 1. Incidence of pest injuries, count of insect pests, and weed cover in July 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

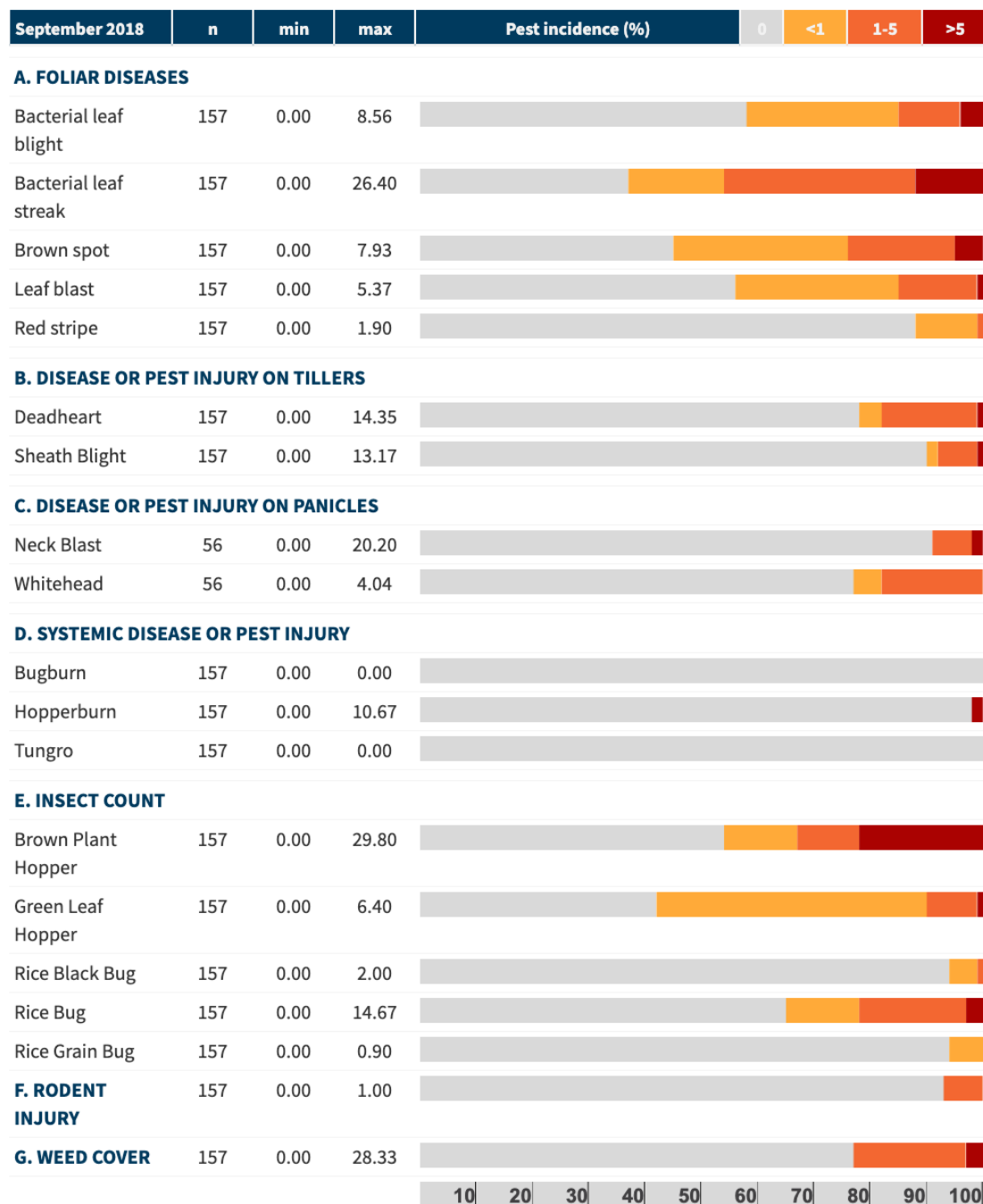
## Region II



Annex Figure 2. Incidence of pest injuries, count of insect pests, and weed cover in August 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

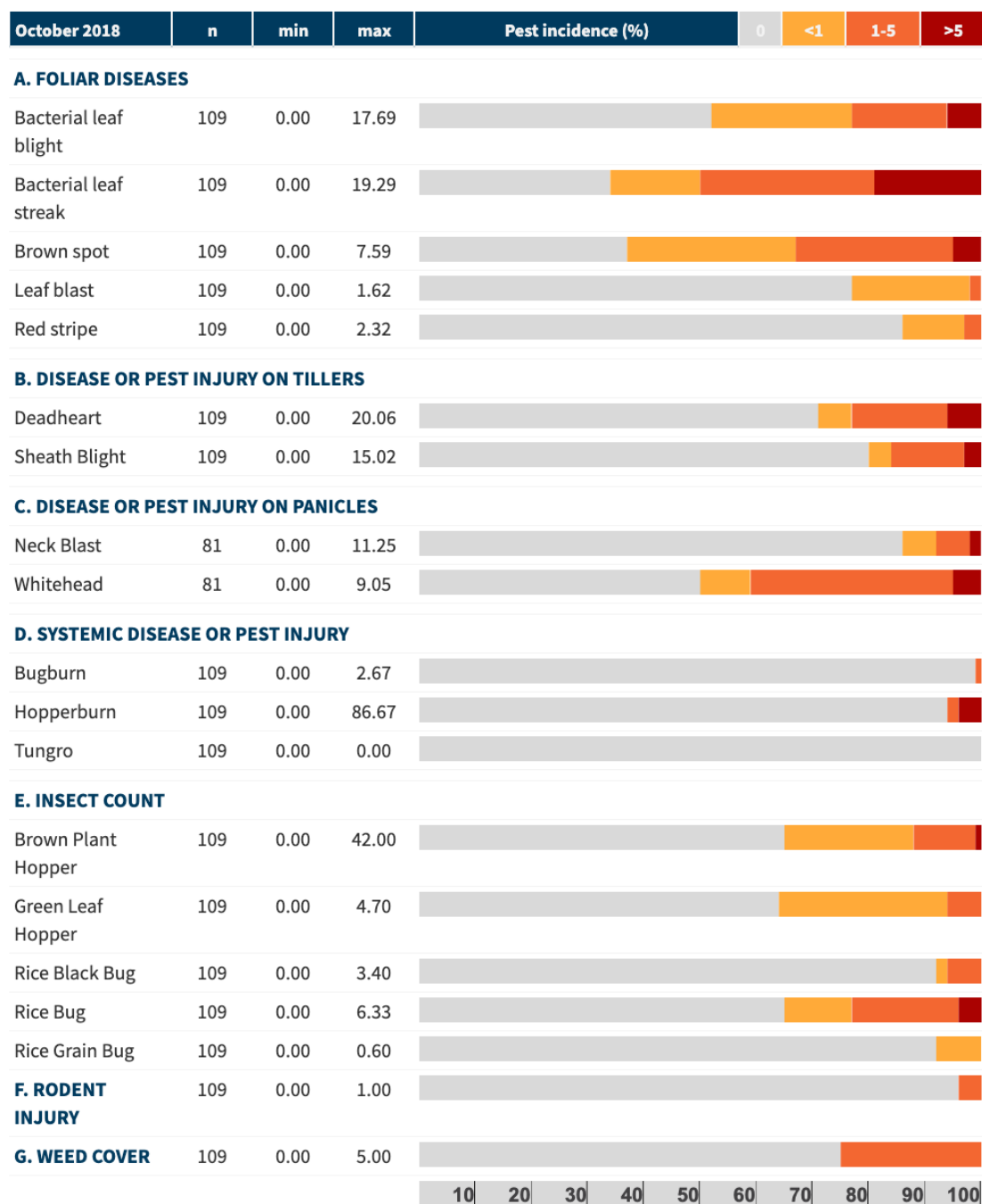
## Region II



Annex Figure 3. Incidence of pest injuries, count of insect pests, and weed cover in September 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## Region II

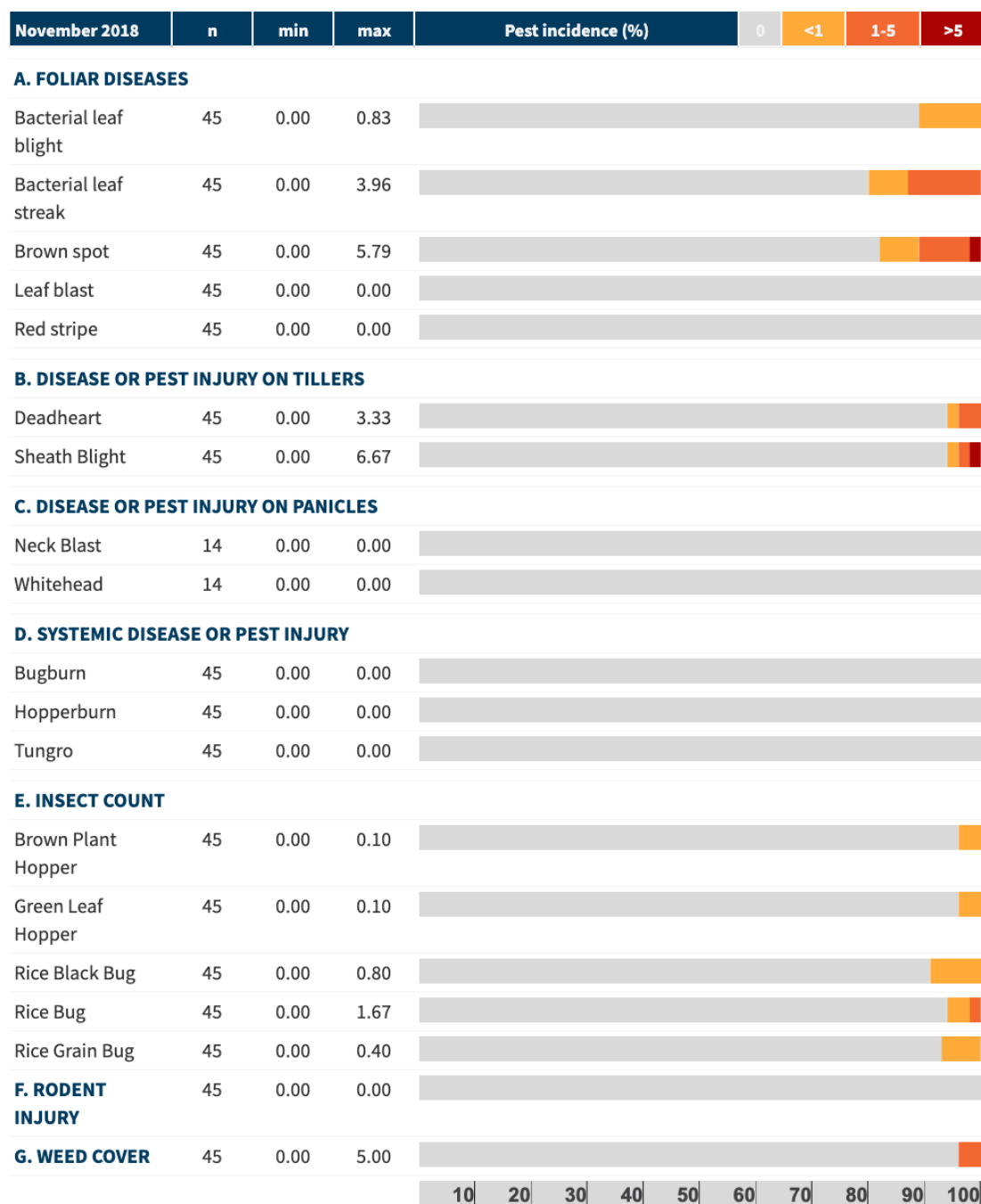


Annex Figure 4. Incidence of pest injuries, count of insect pests, and weed cover in October 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.



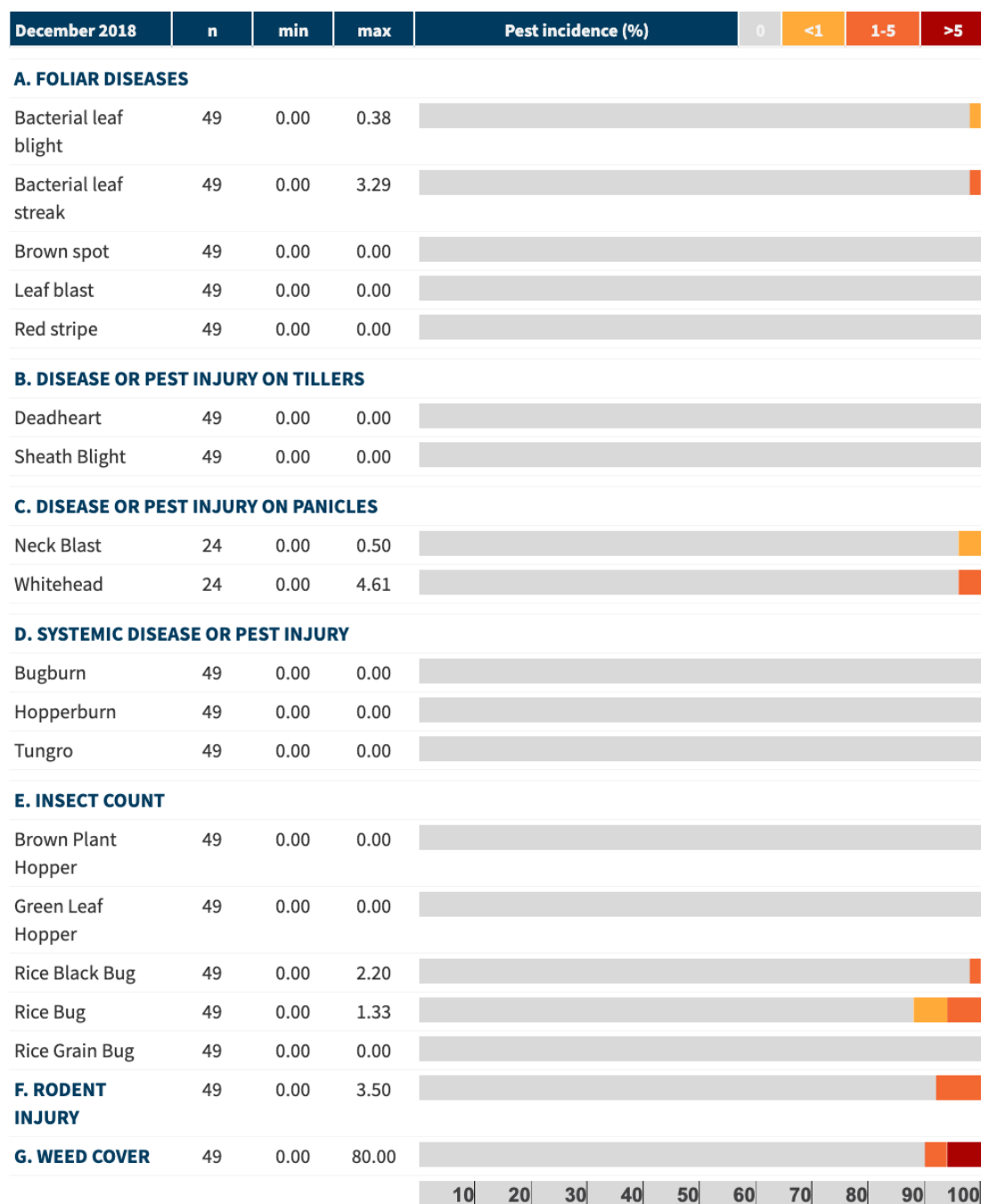
## Region II



Annex Figure 5. Incidence of pest injuries, count of insect pests, and weed cover in November 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## Region II



Annex Figure 6. Incidence of pest injuries, count of insect pests, and weed cover in December 2018. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

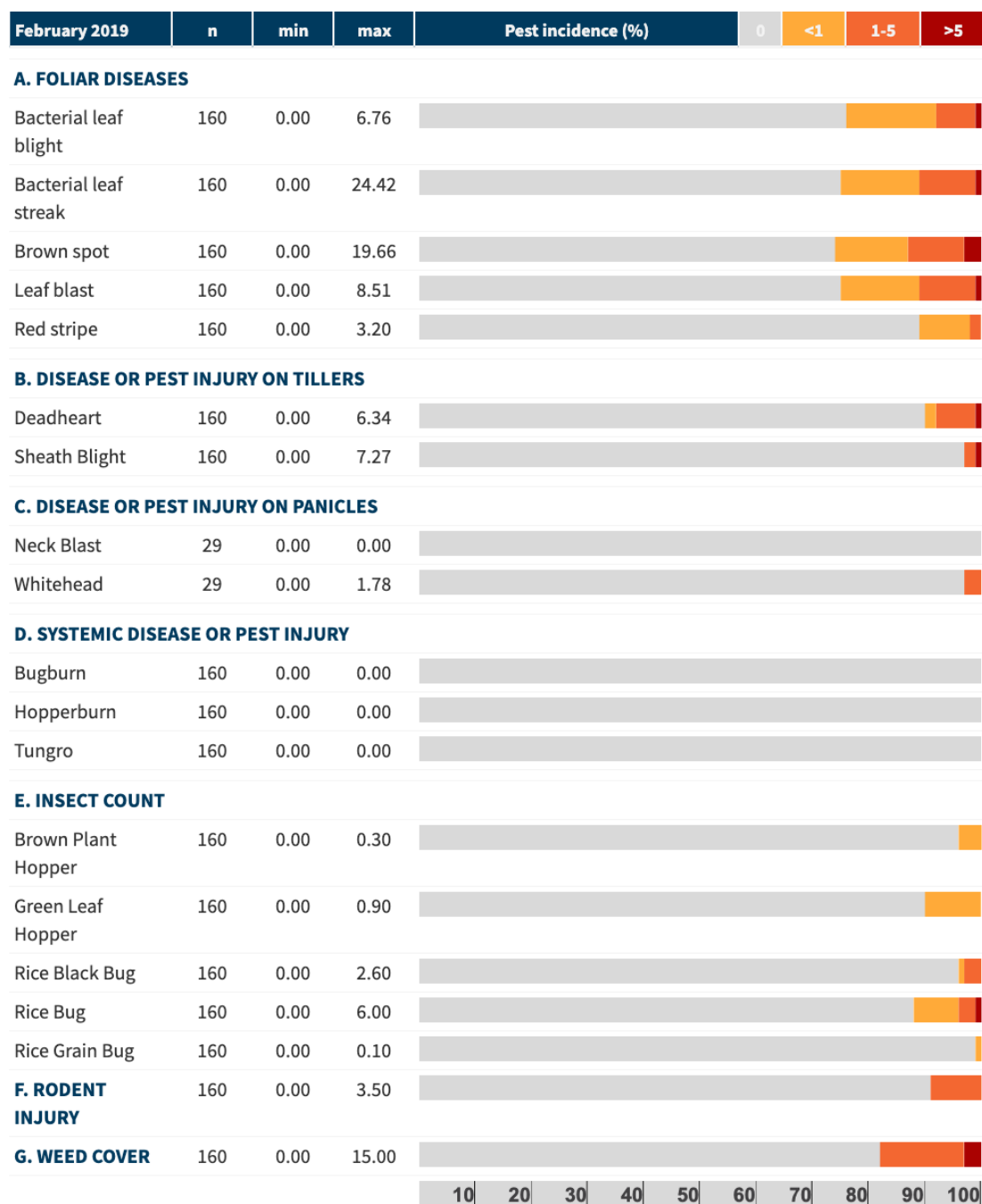
## Region II



Annex Figure 7. Incidence of pest injuries, count of insect pests, and weed cover in January 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

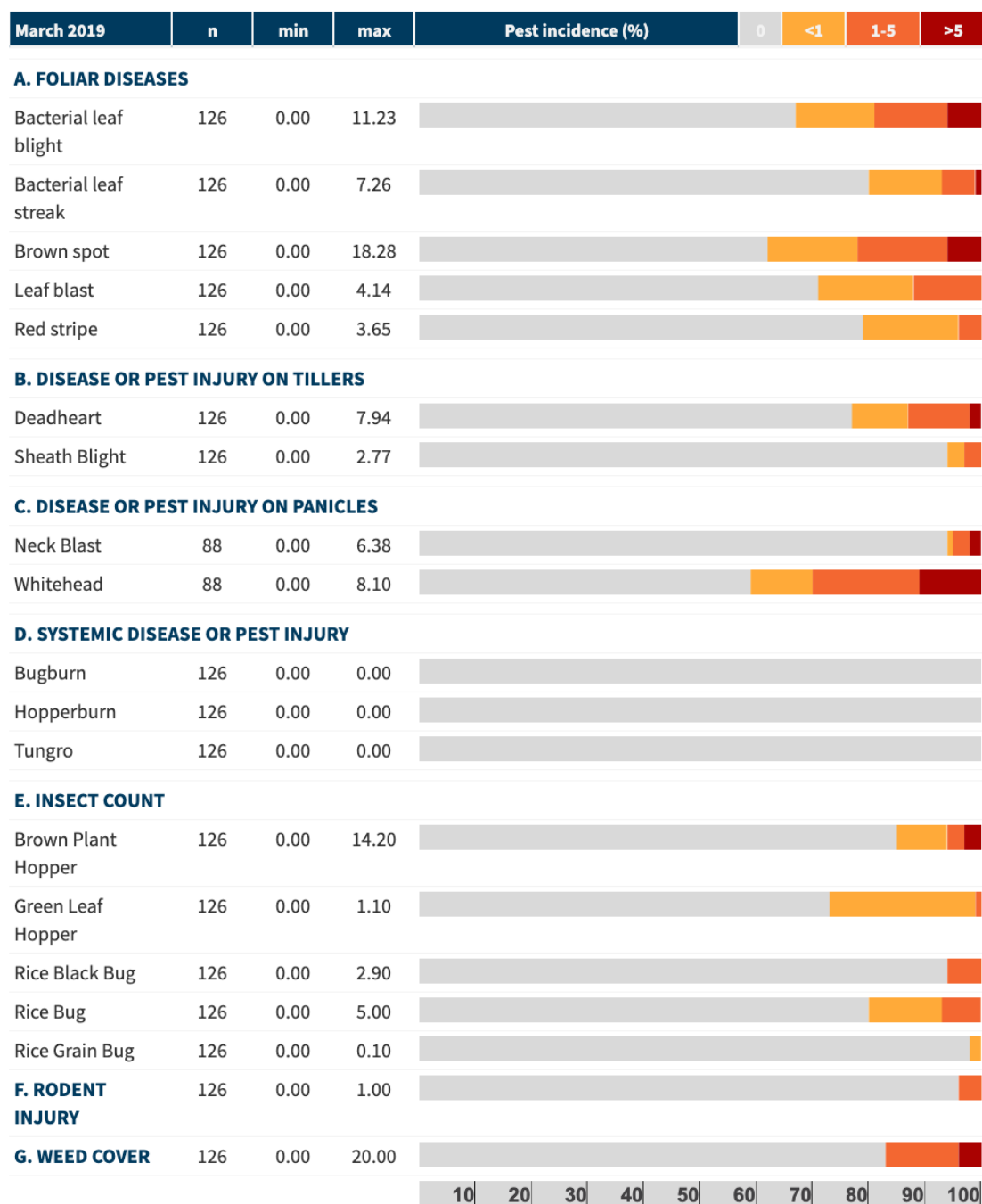
Region II



Annex Figure 8. Incidence of pest injuries, count of insect pests, and weed cover in February 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

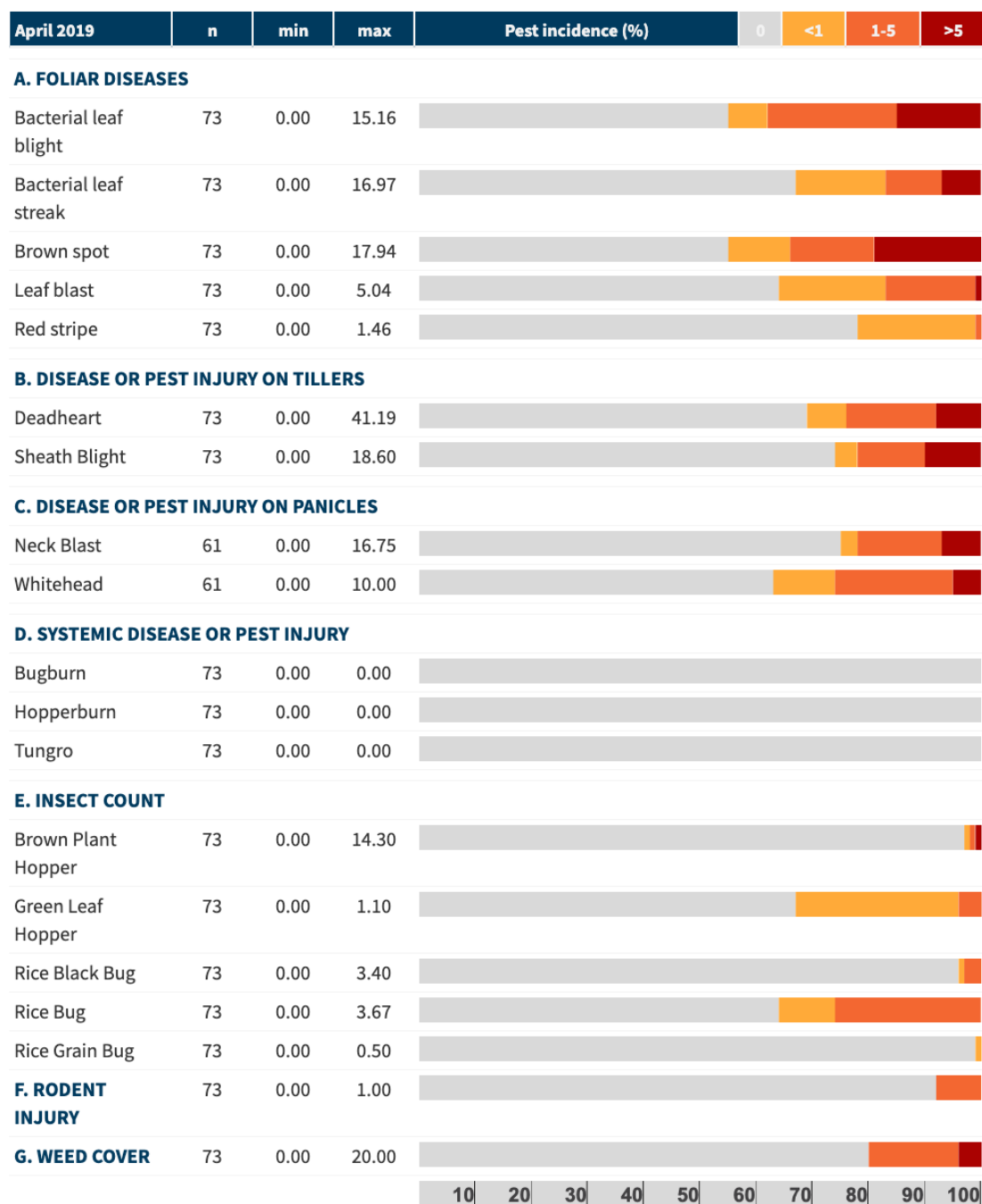
## Region II



Annex Figure 9. Incidence of pest injuries, count of insect pests, and weed cover in March 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

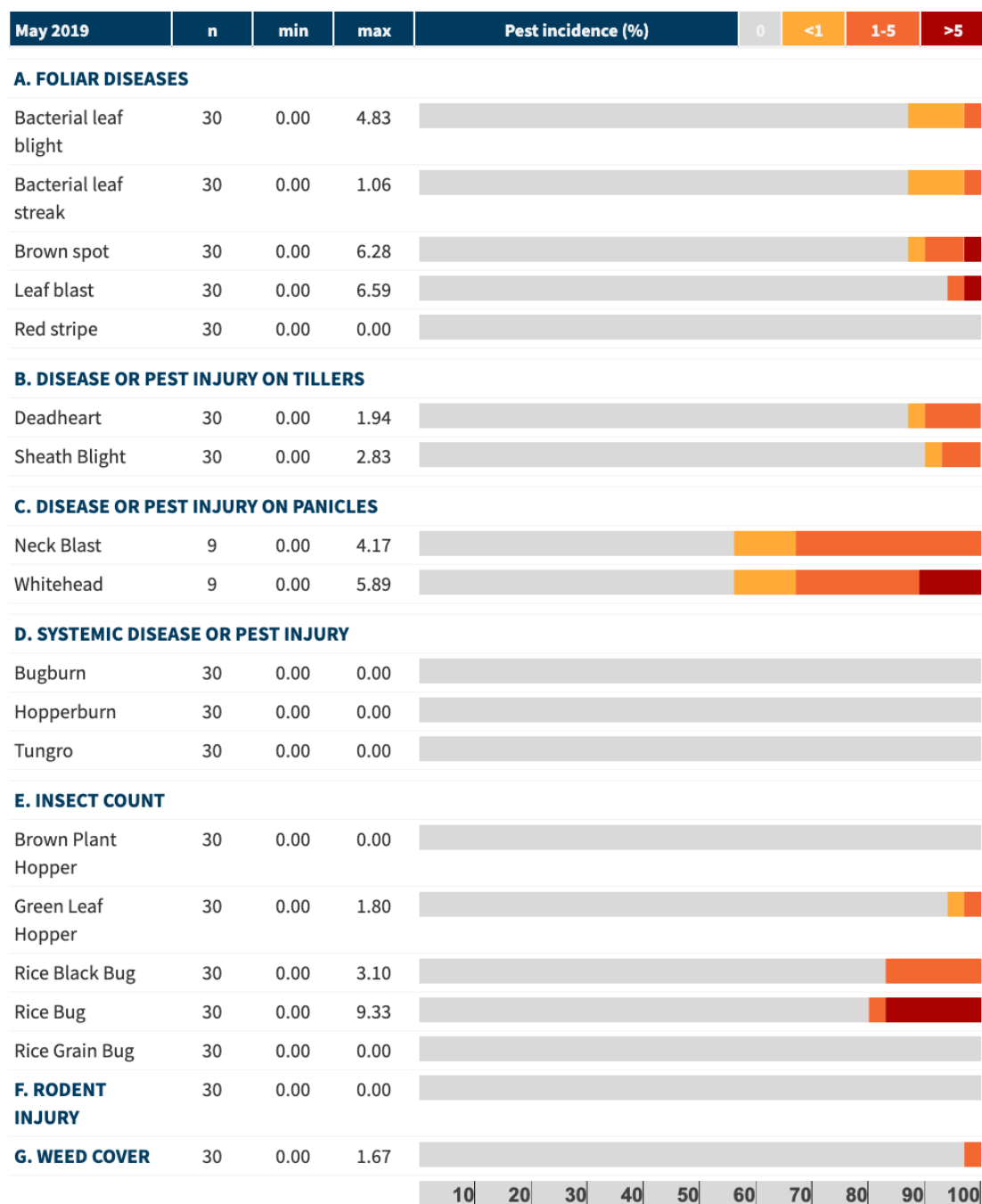
Region II



Annex Figure 10. Incidence of pest injuries, count of insect pests, and weed cover in April 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

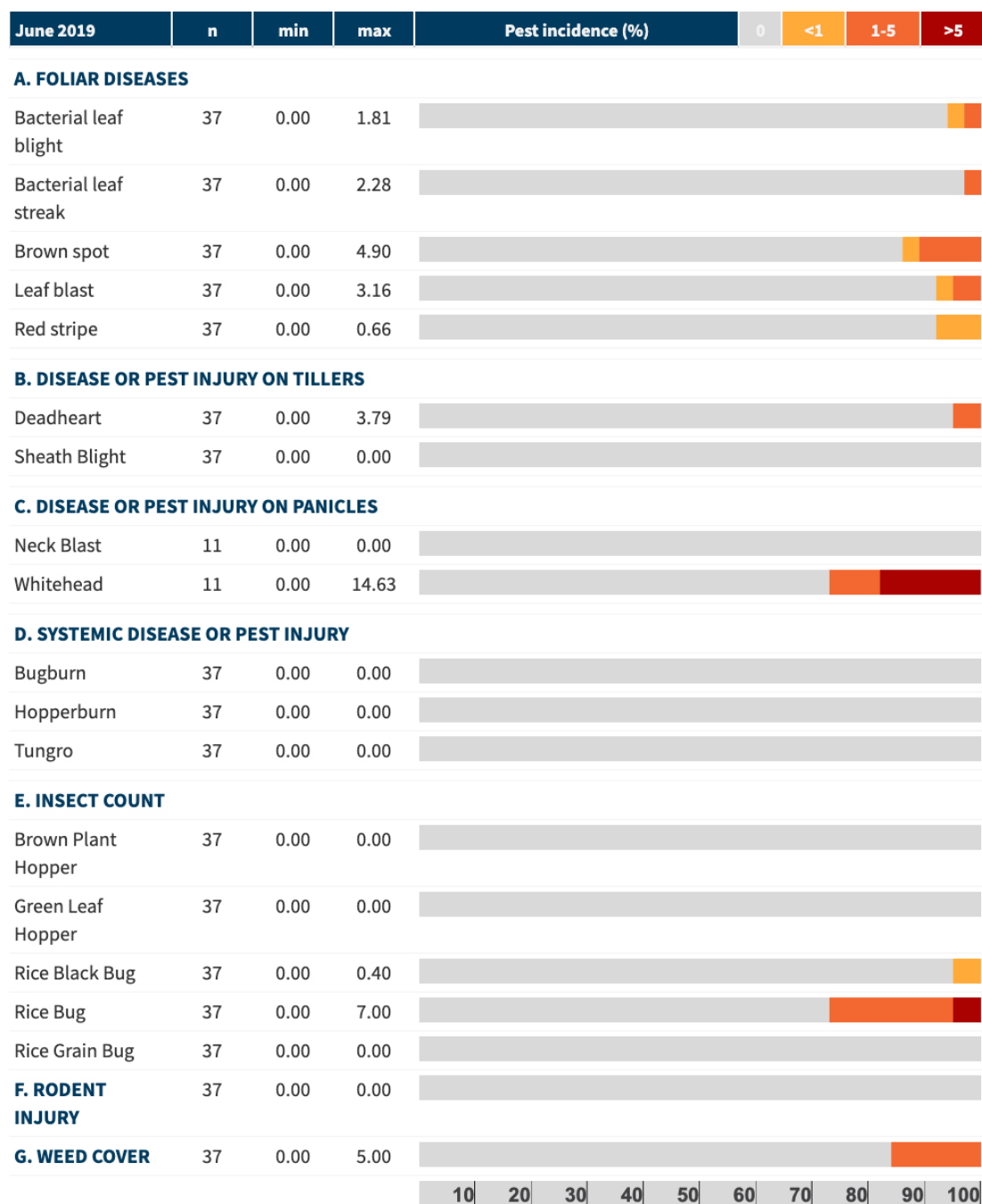
Region II



Annex Figure 11. Incidence of pest injuries, count of insect pests, and weed cover in May 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## Region II

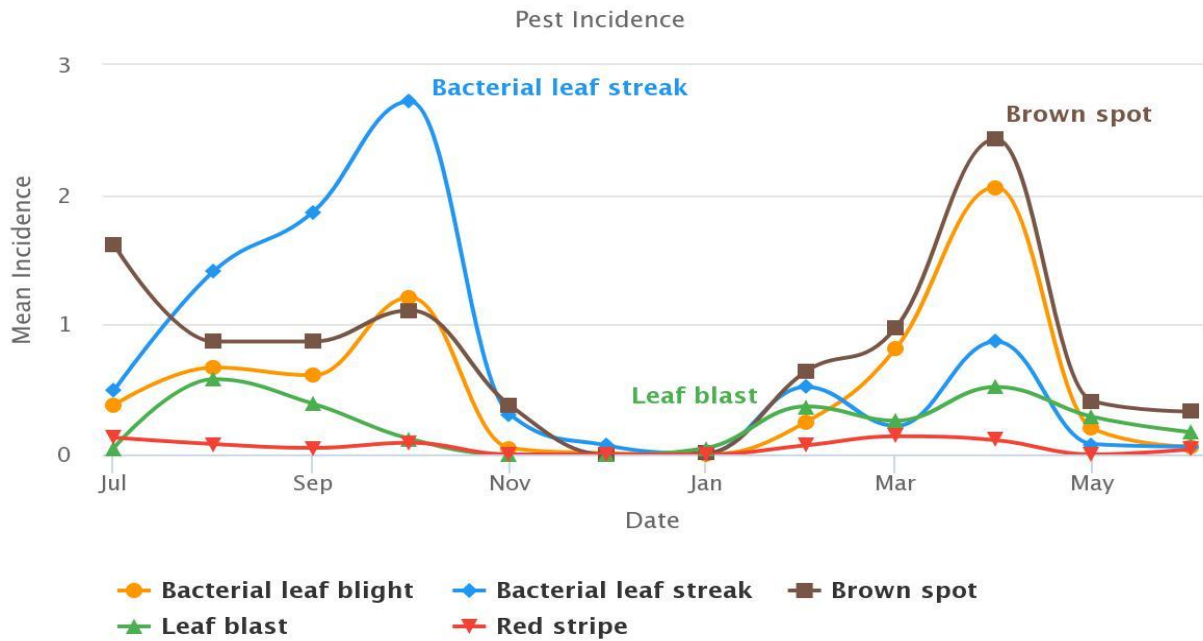


Annex Figure 12. Incidence of pest injuries, count of insect pests, and weed cover in June 2019. Horizontal bar shows the proportion of fields in each range of pest injury incidence, insect count or weed cover.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.



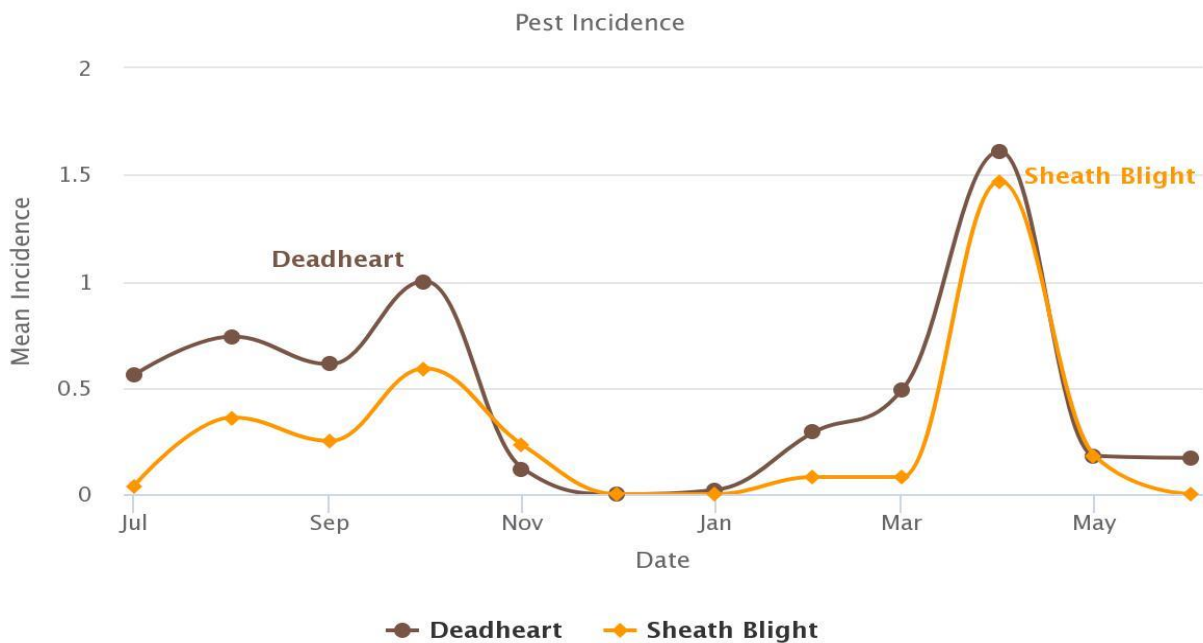
## FOLIAR DISEASES



Highcharts.com

Annex Figure 13. Mean incidence of foliar diseases in Region II, July 2018 to June 2019.

## DISEASE OR PEST INJURY ON TILLERS

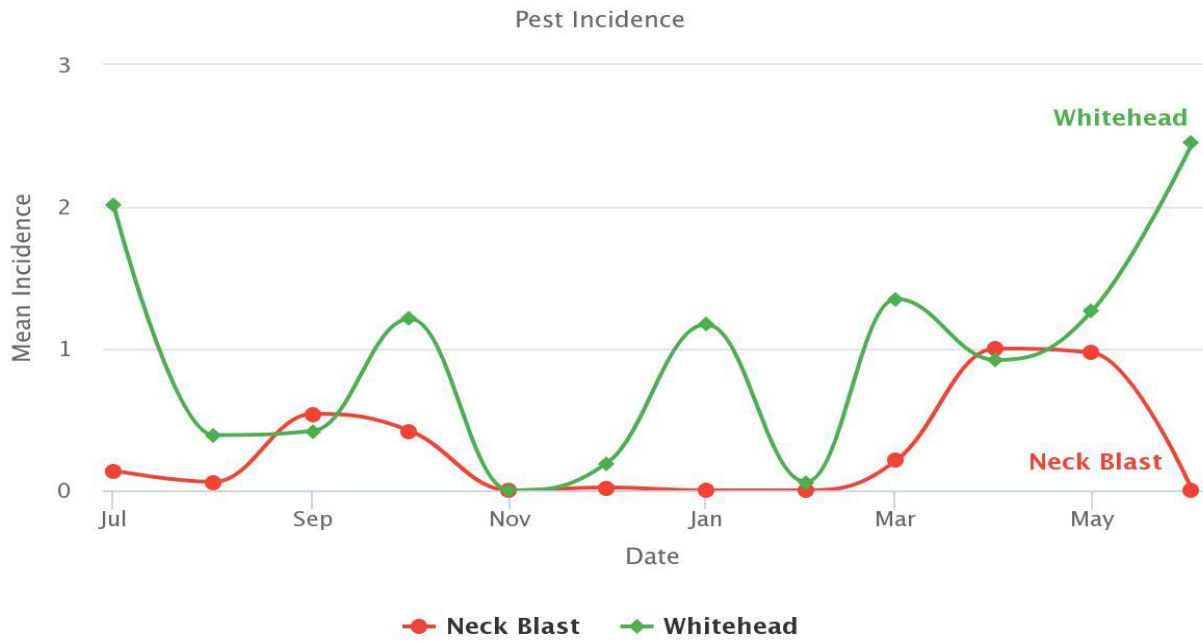


Highcharts.com

Annex Figure 14. Mean Incidence of deadheart and sheath blight in Region II, July 2018 to June 2019.

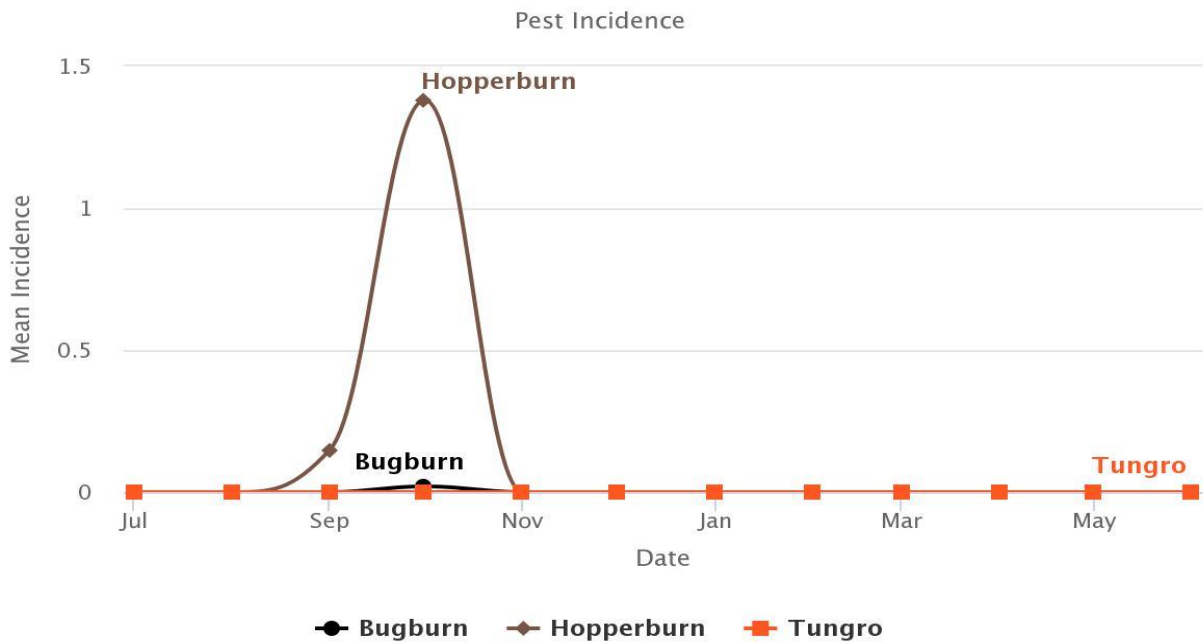
Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## DISEASE OR PEST INJURY ON PANICLES



Annex Figure 15. Mean incidence of neck blast and whitehead in Region II, July 2018 to June 2019.

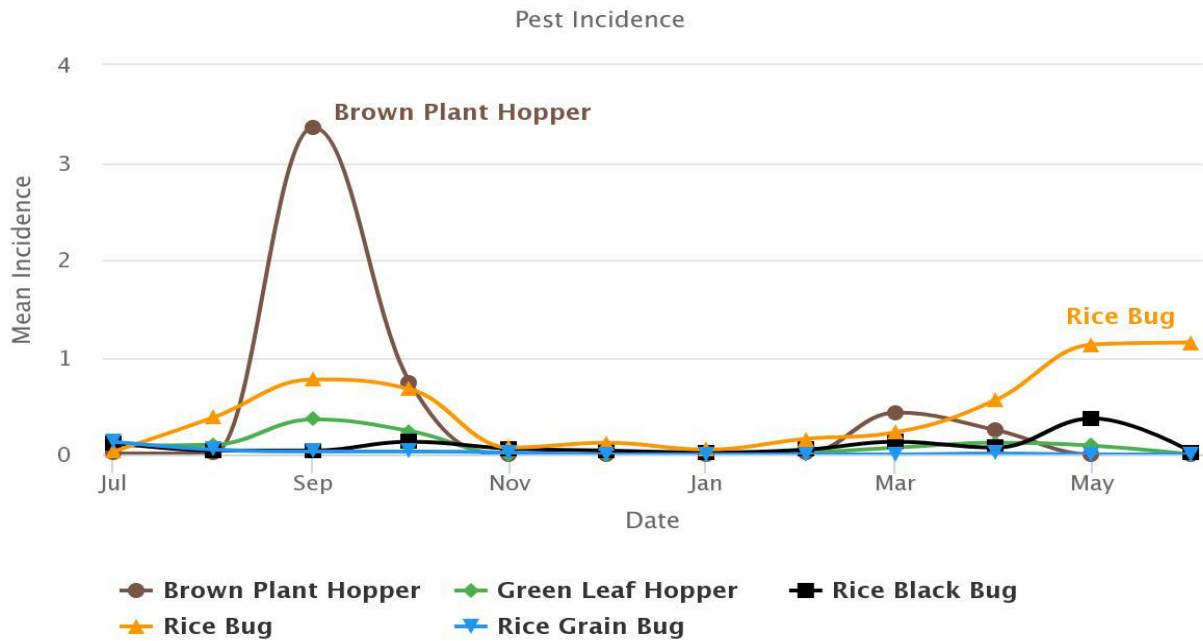
## SYSTEMIC DISEASE OR PEST INJURY



Annex Figure 16. Mean incidence of bugburn, hopperburn and tungro in Region II, July 2018 to June 2019.

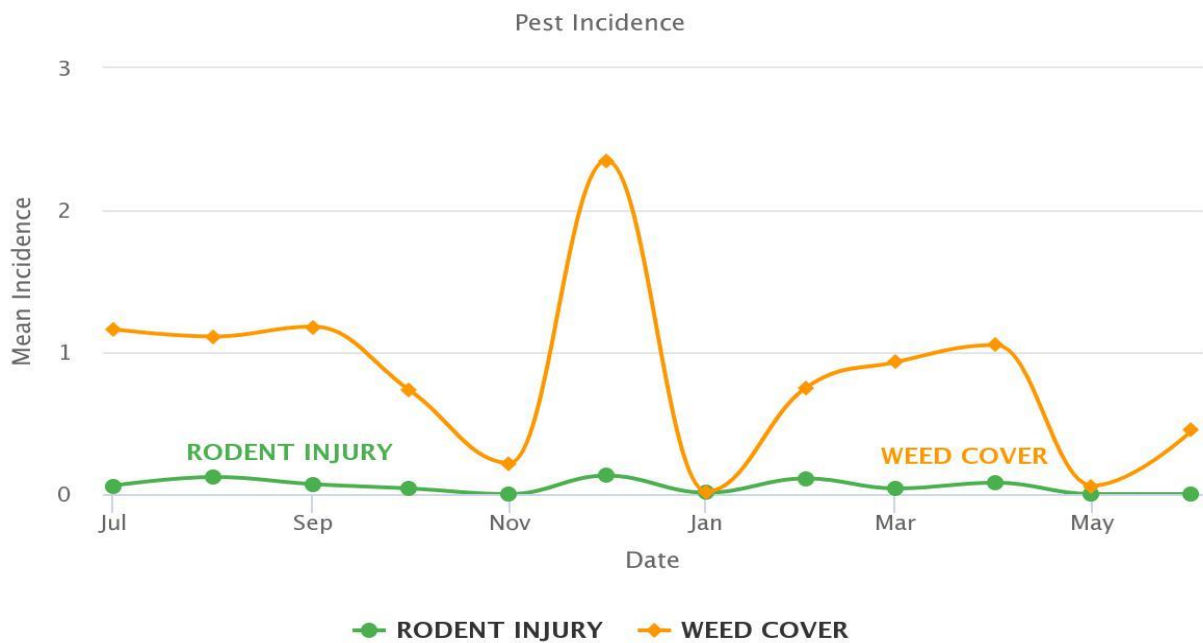
Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

## INSECT COUNT



Annex Figure 17. Mean count of insect pests in Region II, July 2018 to June 2019.

## Other INJURY



Annex Figure 18. Mean incidence of rat injury and weed infestation in Region II, July 2018 to June 2019.

Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.