PRIME

PRE-SEMESTER BULLETIN

June 2020

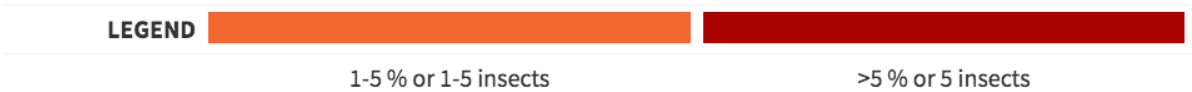
REGION V - BICOL REGION

AT A GLANCE

Table 1. Mean incidence of pest injuries, count of insect pests, and percentage of weed cover by month from July to December 2019.

Region V	2019					
	JUL	AUG	SEP	OCT	NOV	DEC
A. FOLIAR DISEASES						
Bacterial leaf blight	0.5	0.6	0.5	0.5	0.5	0.1
Bacterial leaf streak	0.0	0.1	0.1	0.1	0.3	0.0
Brown spot	1.8	0.8	2.8	3.1	2.3	1.1
Leaf blast	0.6	0.6	0.9	0.6	0.8	0.7
Red stripe	0.4	0.5	0.9	1.0	0.4	0.1
B. DISEASE OR PEST INJURY ON TILLERS						
Deadheart	0.0	0.1	0.6	0.2	0.2	0.0
Sheath Blight	0.0	0.3	0.4	0.5	0.7	0.0
C. DISEASE OR PEST INJURY ON PANICLES						
Neck Blast	0.0	2.2	0.4	0.0	0.0	0.0
Whitehead	0.0	0.6	0.5	0.2	3.4	0.5
D. SYSTEMIC DISEASE OR PEST INJURY						
Bugburn	0.0	0.0	0.0	0.0	0.0	0.0
Hopperburn	0.0	0.0	0.0	0.0	0.0	0.0
Tungro	0.0	0.0	0.0	0.6	0.2	0.0
E. INSECT COUNT						
Brown Planthopper	0.0	0.0	0.3	0.1	0.1	0.1
Green Leafhopper	0.1	0.1	0.3	0.2	0.4	0.1
Rice Black Bug	0.0	0.0	0.0	0.1	0.5	0.0
Rice Bug	0.0	0.1	0.2	0.3	0.9	0.4
Rice Grain Bug	0.0	0.0	0.0	0.0	0.1	0.0
F. RODENT INJURY	0.0	0.1	0.0	0.0	0.2	0.0
G. WEED COVER	0.8	2.0	2.6	0.7	4.0	0.7

Mean of all monitoring fields.

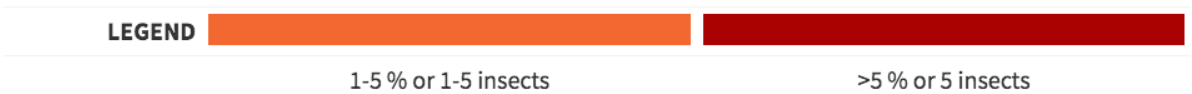


Disclaimer: All the data presented in this report are based on the monthly monitoring of farmers' fields by regional data collectors of PRIME.

Table 2. Mean incidence of pest injuries, count of insect pests, and percentage of weed cover by month from July to December 2018.

Region V	2018					
	JUL	AUG	SEP	OCT	NOV	DEC
A. FOLIAR DISEASES						
Bacterial leaf blight	1.7	0.6	1.6	1.1	2.3	1.5
Bacterial leaf streak	0.1	0.5	0.5	0.2	0.1	0.4
Brown spot	1.2	1.2	2.6	2.7	3.9	4.3
Leaf blast	0.0	0.9	0.8	0.8	1.9	1.6
Red stripe	0.0	0.1	0.2	0.1	0.0	1.1
B. DISEASE OR PEST INJURY ON TILLERS						
Deadheart	0.2	0.4	0.3	0.8	0.6	0.6
Sheath Blight	0.0	0.8	0.4	1.1	0.0	0.3
C. DISEASE OR PEST INJURY ON PANICLES						
Neck Blast	0.0	0.6	0.5	0.5	4.0	0.2
Whitehead	0.0	2.4	1.3	4.9	0.0	1.5
D. SYSTEMIC DISEASE OR PEST INJURY						
Bugburn	0.0	0.0	0.0	0.0	0.0	0.0
Hopperburn	0.0	0.0	0.0	0.0	0.0	0.0
Tungro	0.0	0.0	0.0	0.0	0.0	0.0
E. INSECT COUNT						
Brown Planthopper	0.0	0.1	0.2	0.1	0.2	0.2
Green Leafhopper	0.0	0.2	0.4	0.2	0.4	0.4
Rice Black Bug	0.0	0.0	0.0	0.0	0.0	0.0
Rice Bug	0.0	0.2	1.0	1.0	0.1	0.5
Rice Grain Bug	0.0	0.0	0.1	0.1	0.0	0.0
F. RODENT INJURY	0.1	0.4	0.5	0.6	0.2	0.1
G. WEED COVER	0.4	3.0	3.8	2.8	5.8	3.8

Mean of all monitoring fields.



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

Table 3. Important pest in the region for the last 2nd semester 2018 and 1st semester 2019.

	Month with peak injury/population	
	2nd semester 2018	2nd semester 2019
FOLIAR DISEASES		
Bacterial leaf blight	November	-
Brown spot	December	October
Leaf blast	November	-
DISEASE OR PEST INJURY ON TILLERS		
Sheath blight	October	-
DISEASE OR PEST INJURY ON PANICLES		
Neck blast	November	August
Whitehead	October	November
INSECT COUNT		
Rice bug	September, October	-
WEED COVER	November	November

The peak of bacterial leaf blight, brown spot and leaf blast were observed in November (2.3%), December (4.3%) and November (1.9%) of 2018, respectively. While brown spot peak of incidence was observed in October (3.1%) of 2019.

The peak sheath blight was observed in October (1.1%) of 2018.

The peak of neck blast and whitehead was observed in November (4.0%) and October (4.9%) of 2018, respectively. While neck blast and whitehead were observed in August (2.2%) and November (3.4%) of 2019, respectively.

The population of rice bug was observed with a mean of 1 bug/sqm on September and October of 2018 which were before and during the peak month of harvesting.

The peak of weed cover was commonly observed when most of the crops were at the reproductive growth stages.

Pest injury incidence, population and weed cover at provincial level is presented in Annex tables for area prioritization.

Monitored fields and data collectors

Municipalities surveyed: Camarines Sur: Minalabac, Libmanan, and Bula

Monitoring date: July 2019 - December 2019

Number of monitoring fields: 84 monitoring fields

Data collectors: Adrian Pornillos, Clarenz Sabio, Godofredo Balmeo, Hansel Arcilla, Jay Ar Baldoza, Johnson Visitacion, Joseph Penaverde, Mark Ibo, and Nathan Botin

Figure 1. Monitored barangays in Region V from July 2019 to December 2019. Each barangay is represented by 1 marker.

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

Municipalities surveyed: Camarines Sur: Minalabac, Libmanan, and Bula

Monitoring date: July 2018 - December 2018

Number of monitoring fields: 84 monitoring fields

Data collectors: Adrian Pornillos, Catherine Comia, Godofredo Balmeo, Hansel Arcilla, Jay Ar Baldoza, Johnson Visitacion, Joseph Penaverde, Mark Francis Ibo, and Nathan Botin

Figure 2. Monitored barangays in Region V from July 2018 to December 2018. Each barangay is represented by 1 marker.

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

Growth stage

Most of the fields monitored from July 2019 to December 2019 were at the vegetative stage in August and the peak of harvest occurred in October (Figure 3). Majority of the fields were fallow in November.

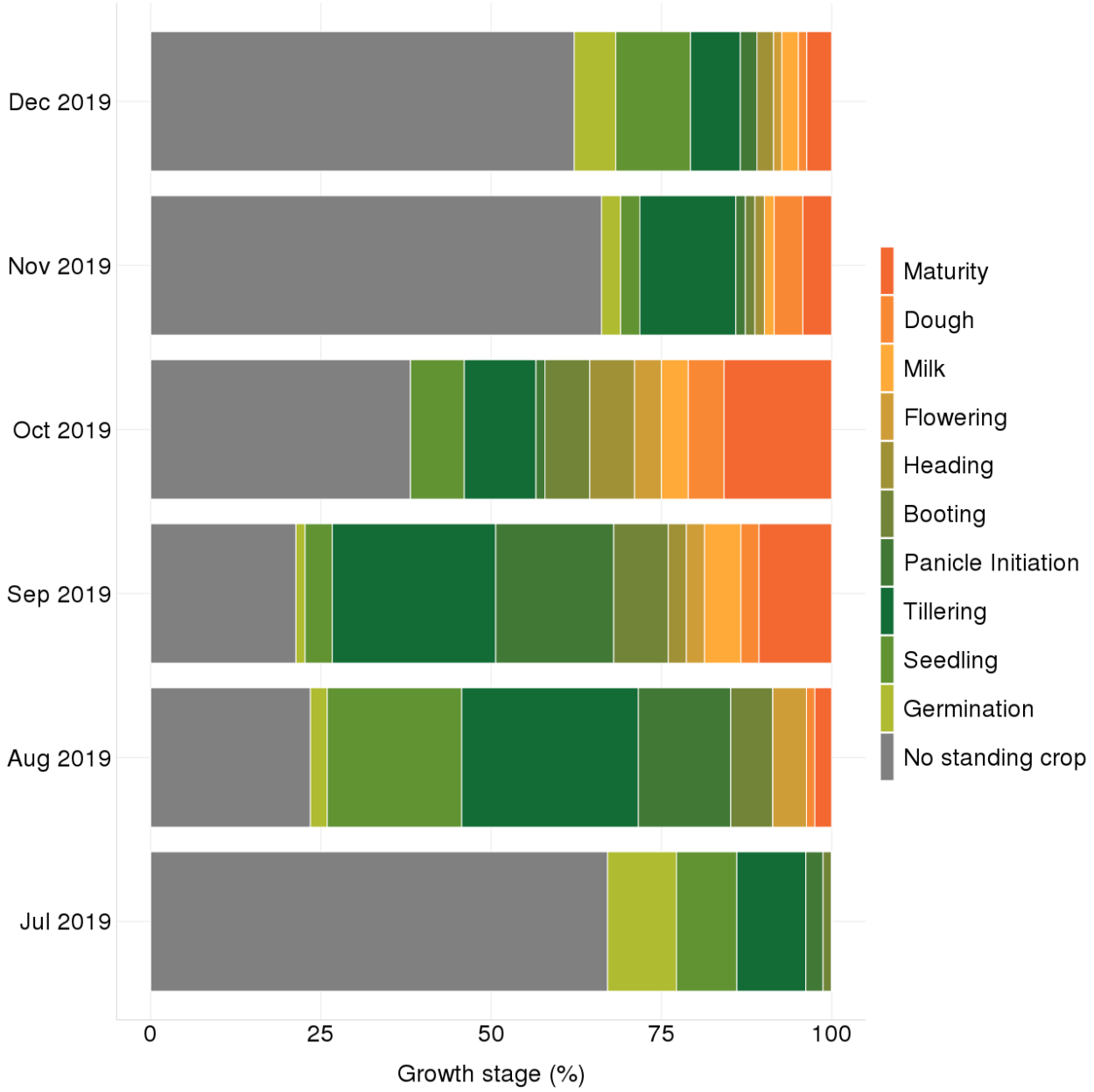


Figure 3. Proportion of crop growth stages of fields by month.

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

Most of the fields monitored from July 2018 to December 2018 were at the vegetative stage in August and the peak of harvest occurred in September to October (Figure 4). Majority of the fields were fallow in November.

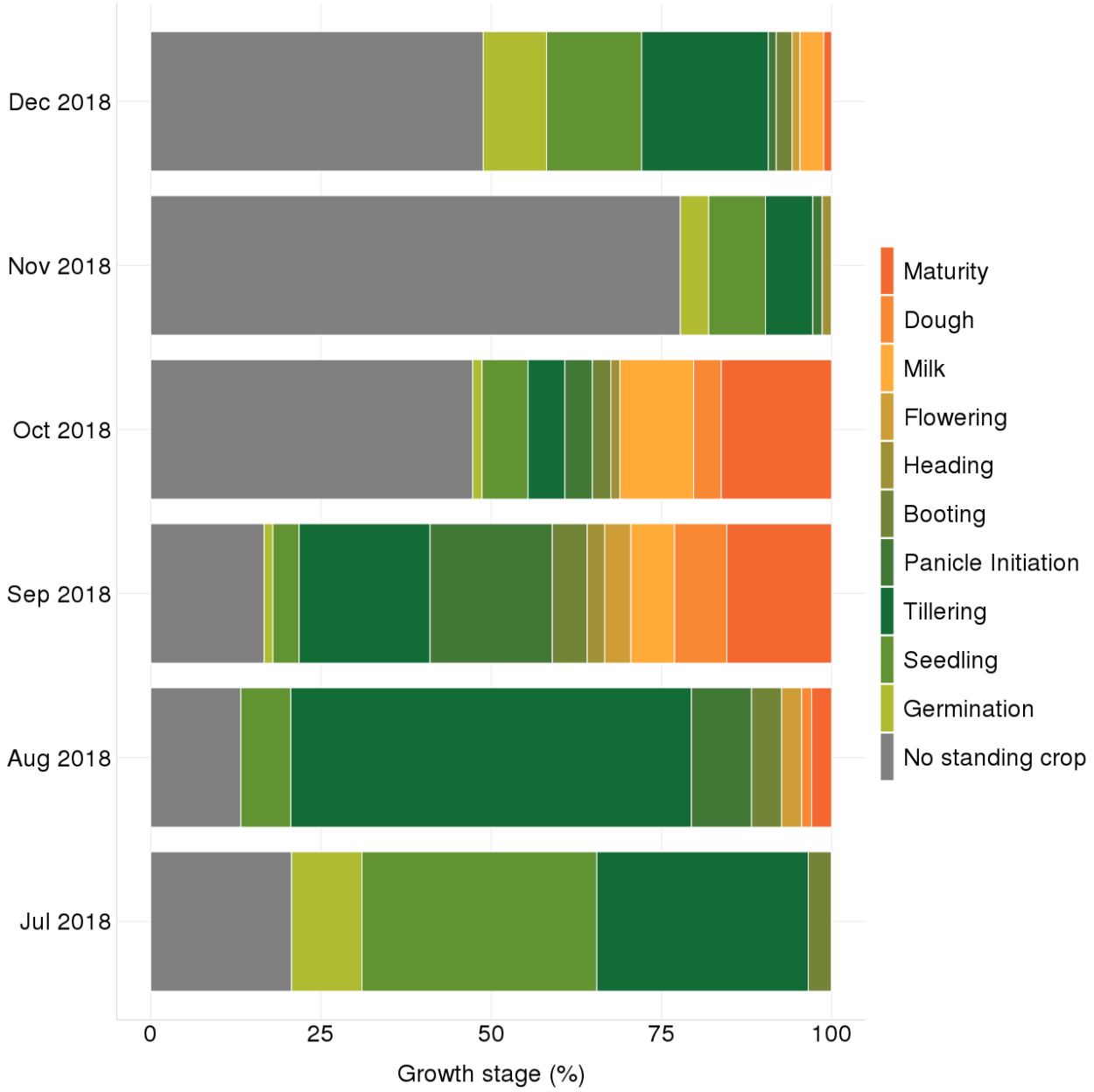


Figure 4. Proportion of crop growth stages of fields by month.

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 5 to 18). 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 incidence of foliar diseases during the second semesters of 2018 and 2019 were generally negligible (Figure 5 and 6). An increase of <5% incidence of bacterial leaf blight, brown spot and leaf blast were observed in November (2.3%), December (4.3%) and November (1.9%) of 2018, respectively. While brown spot peak of incidence was observed in October (3.1%) of 2019.

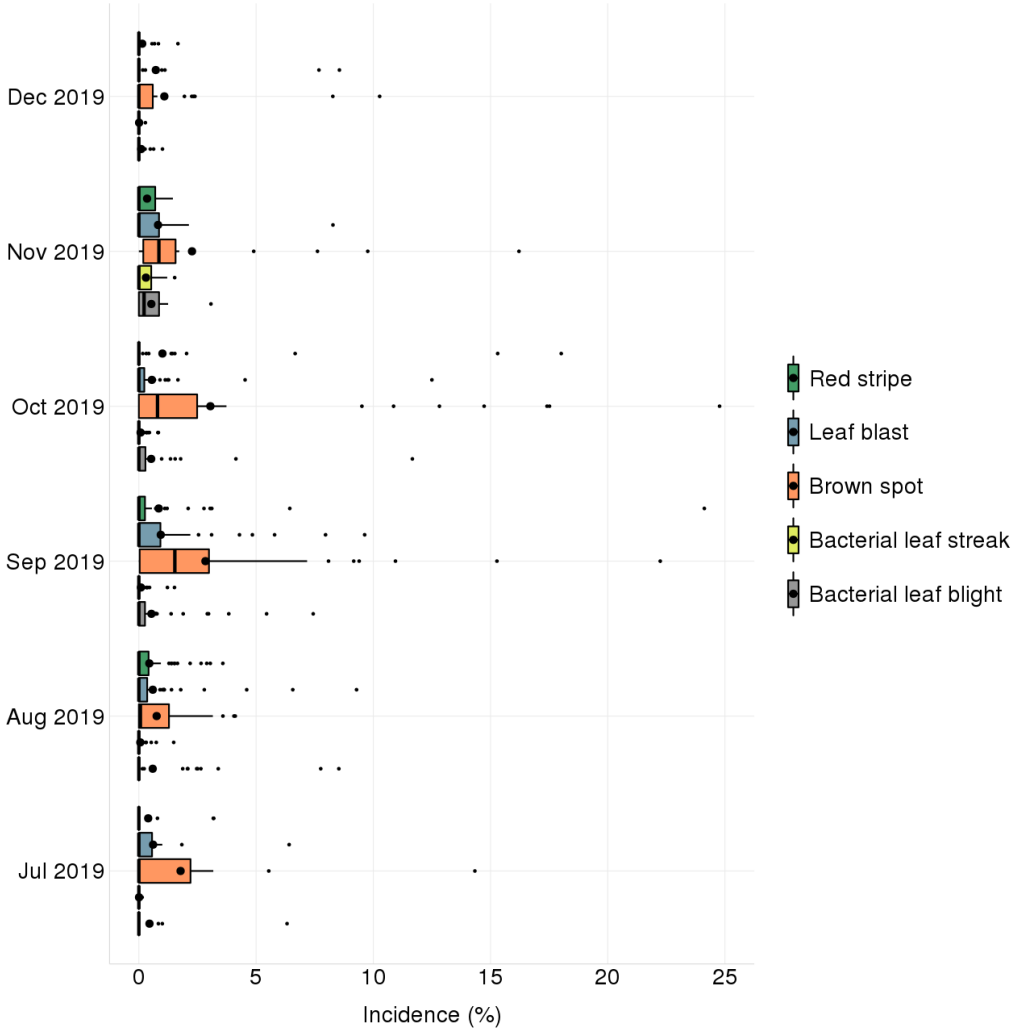


Figure 5. Incidence of foliar diseases in Region V, July 2019 to December 2019.

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

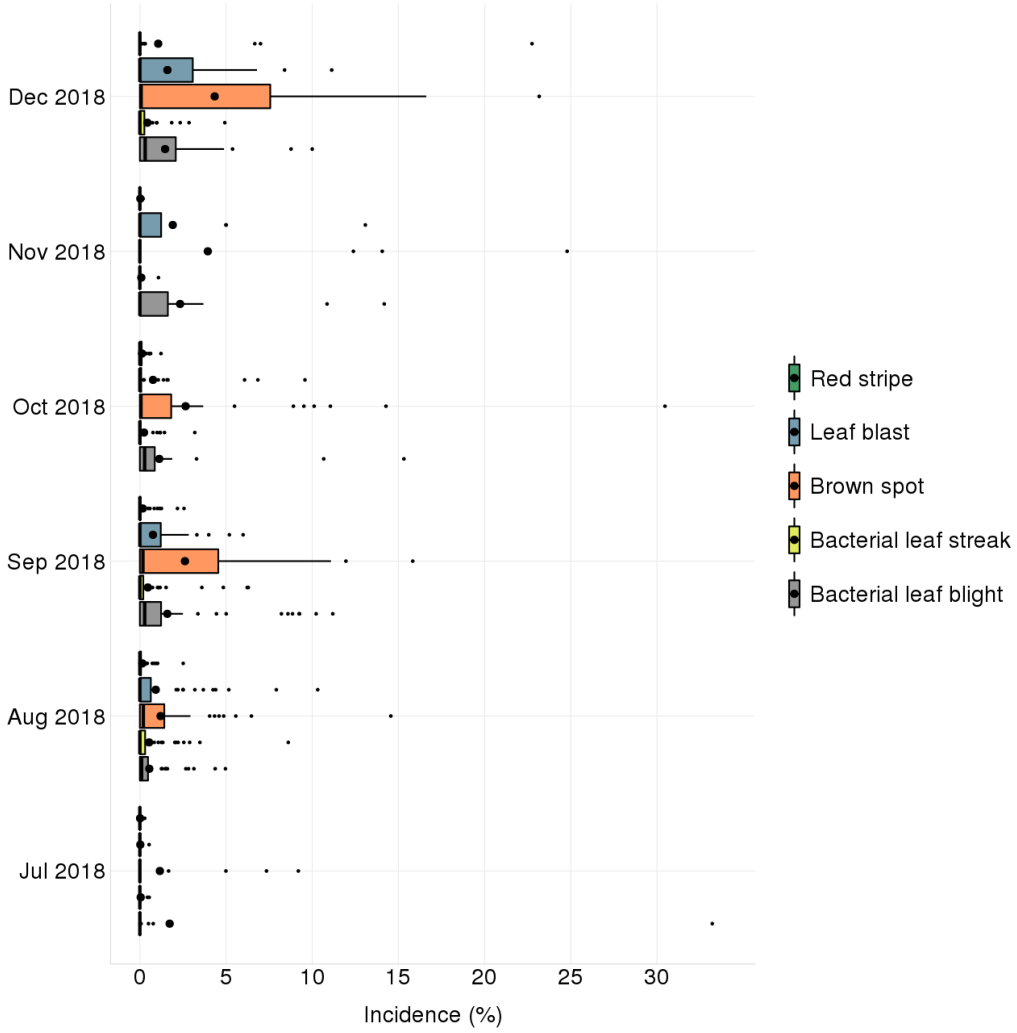


Figure 6. Incidence of foliar diseases in Region V, July 2018 to December 2018.

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

B. Insect pest injuries and diseases on tillers

The incidence of dead heart and sheath blight during the second semesters of 2018 and 2019 were generally negligible (Figure 7 and 8). The median incidence of insect pest and diseases on tillers was 0 in almost all months.

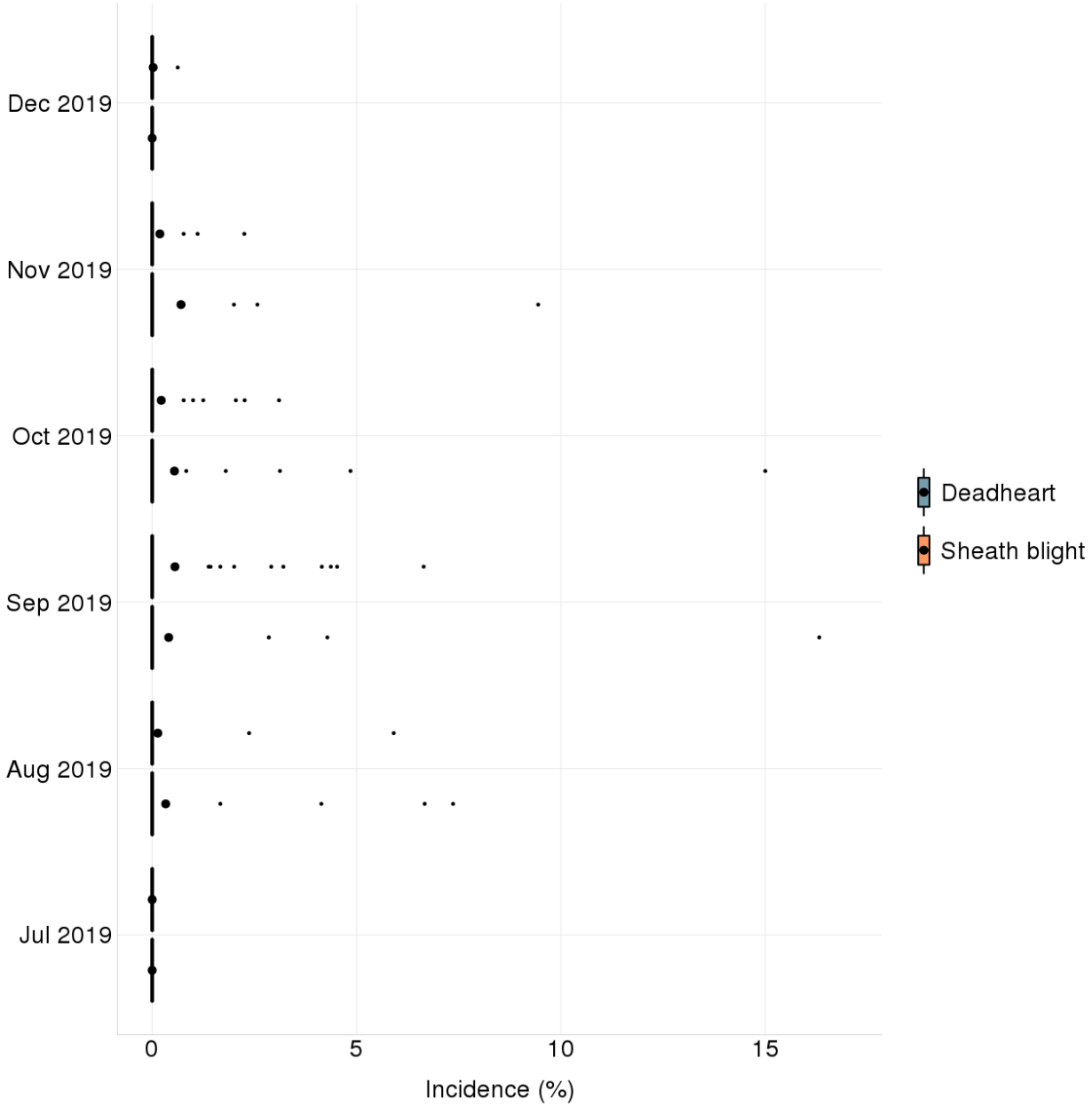


Figure 7. Incidence of dead heart and sheath blight in Region V, July 2019 to December 2019.

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

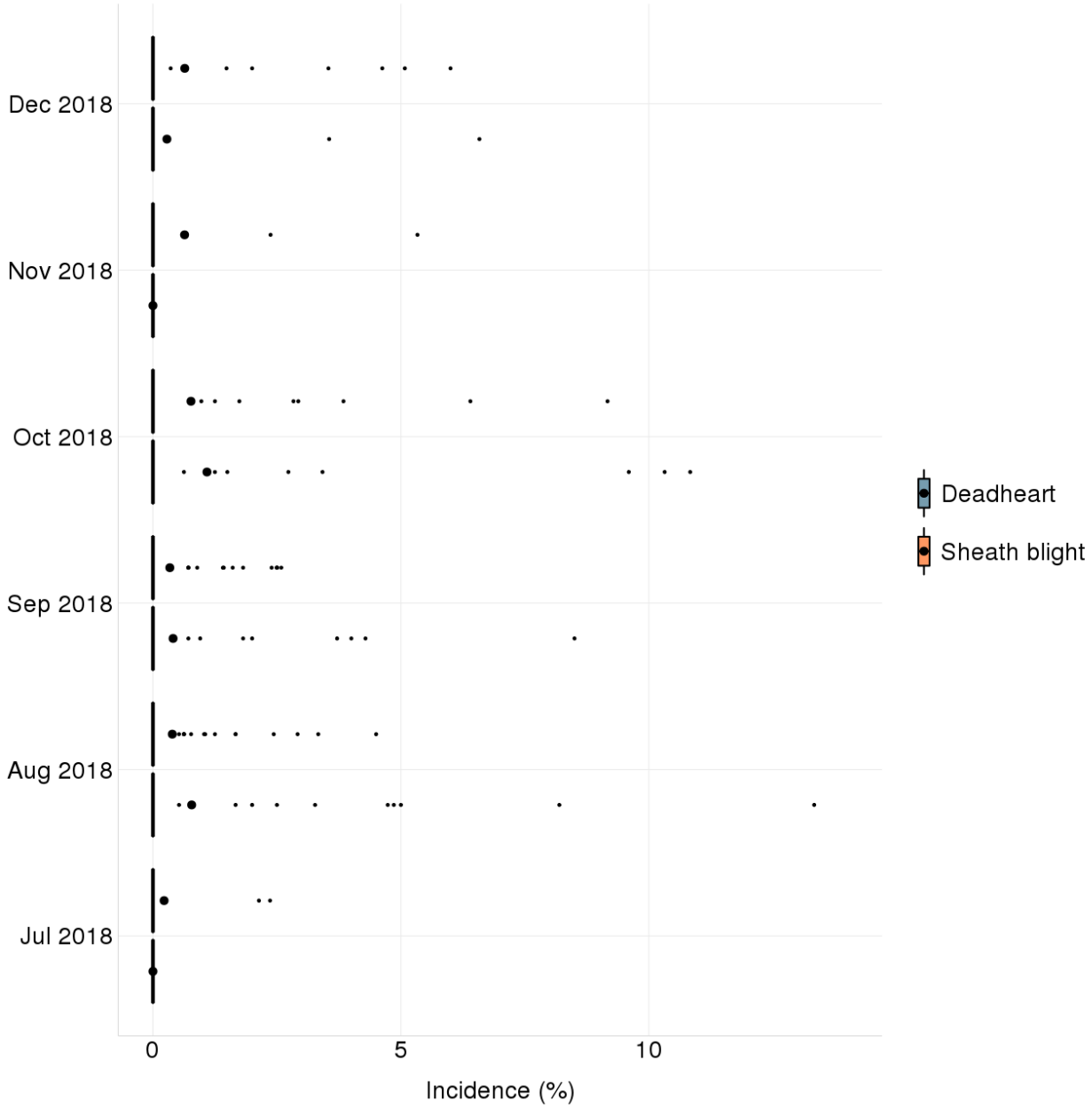


Figure 8. Incidence of dead heart and sheath blight in Region V, July 2018 to December 2018.

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 white head during the second semesters of 2018 and 2019 were generally negligible (Figure 7 and 8). An increase of <5% incidence of neck blast and whitehead was noted in November (4.0%) and October (4.9%) of 2018, respectively. While in August (2.2%) and November (3.4%) of 2019, respectively. The median incidence of insect pest and diseases on panicles was 0 in almost all months.

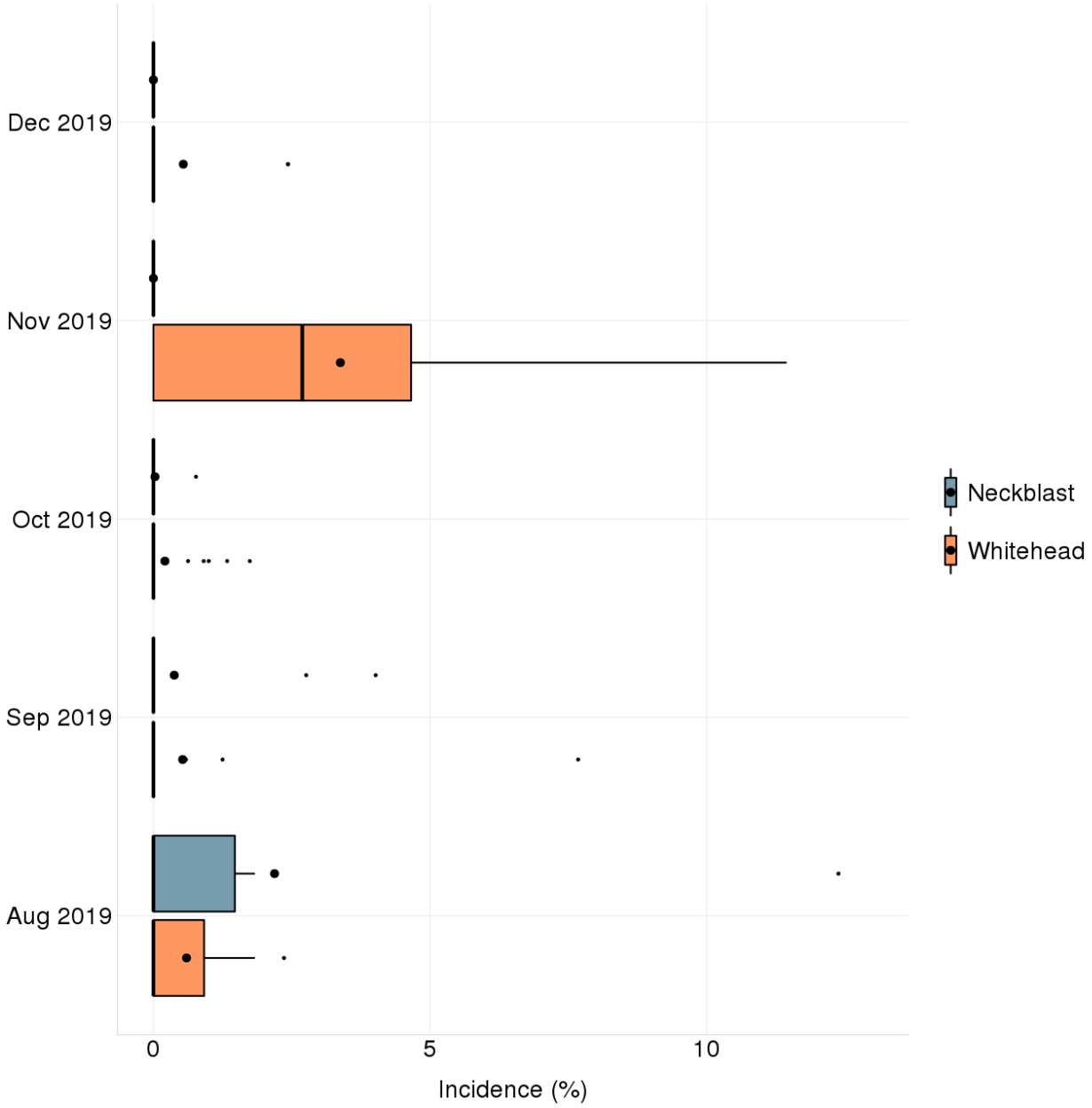


Figure 9. Incidence of neck blast and whitehead in Region V, July 2019 to December 2019.

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

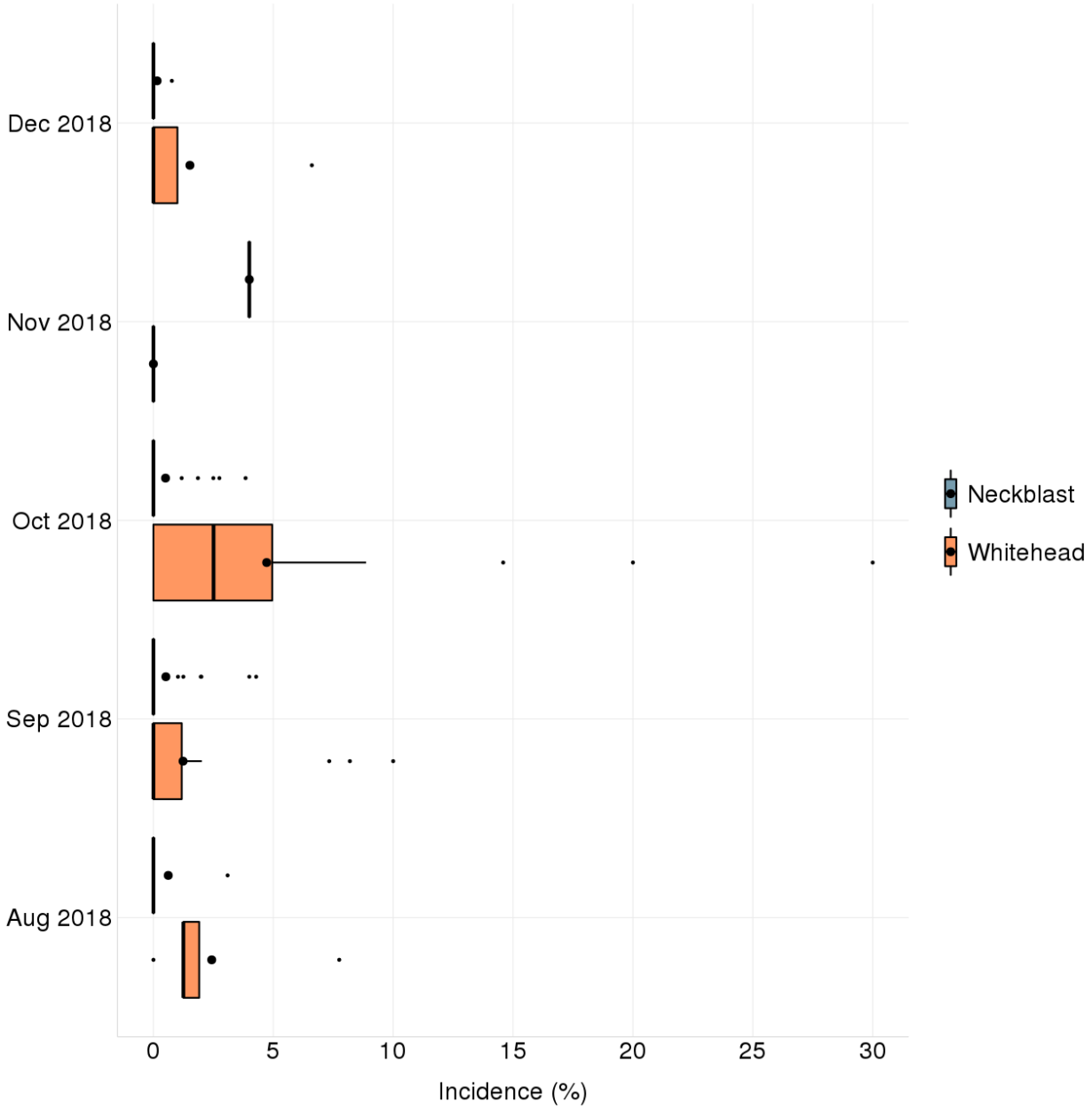


Figure 10. Incidence of neck blast and whitehead in Region V, July 2018 to December 2018.

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 diseases and insect pest injuries

The incidence of bugburn, hopperburn and tungro during the second semesters of 2018 and 2019 were generally negligible (Figure 11 and 12). The median incidence of systemic diseases and insect pest injuries was 0 in almost all months.

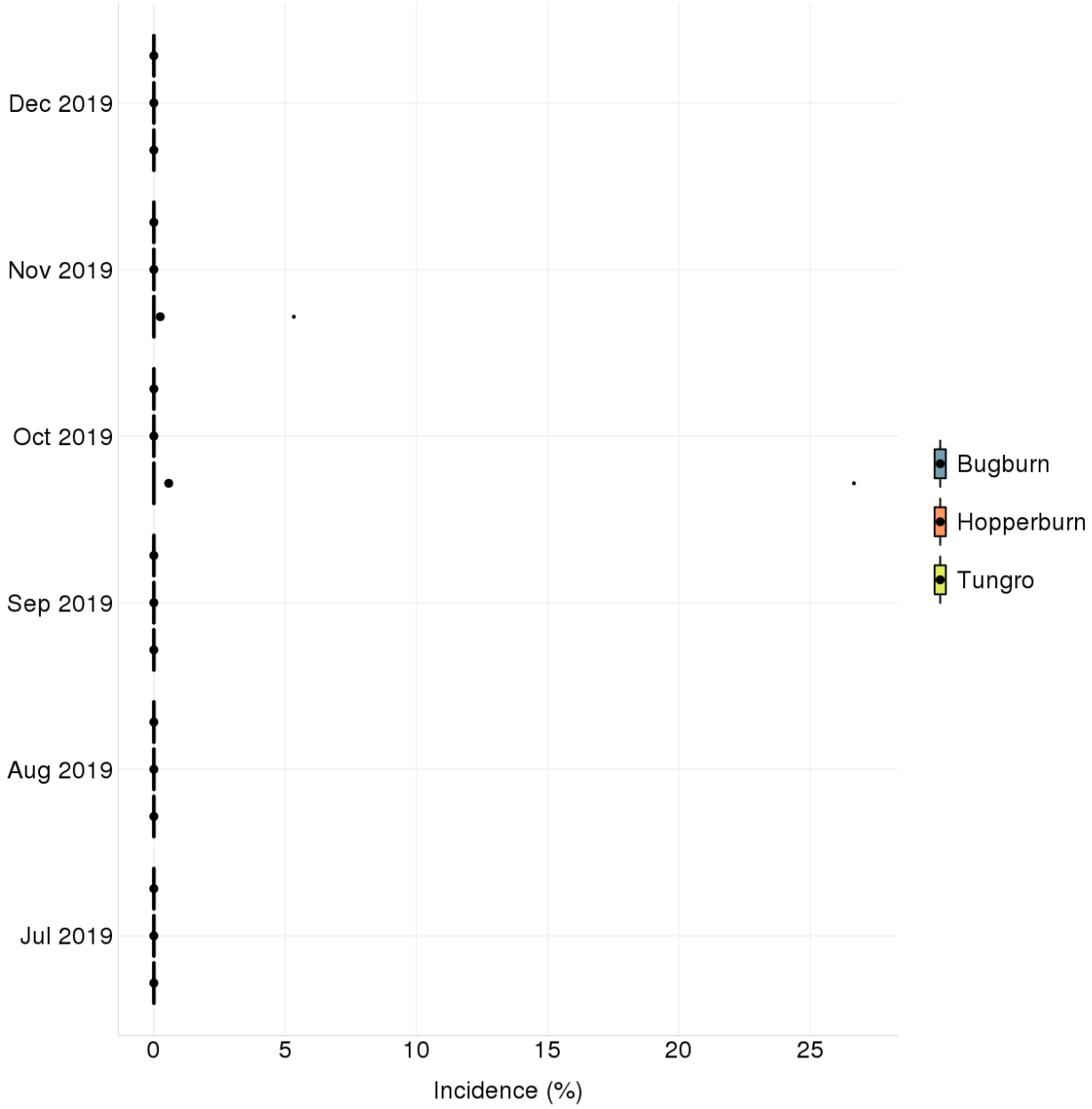


Figure 11. Incidence of bugburn, hopperburn and tungro in Region V, July 2019 to December 2019.

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

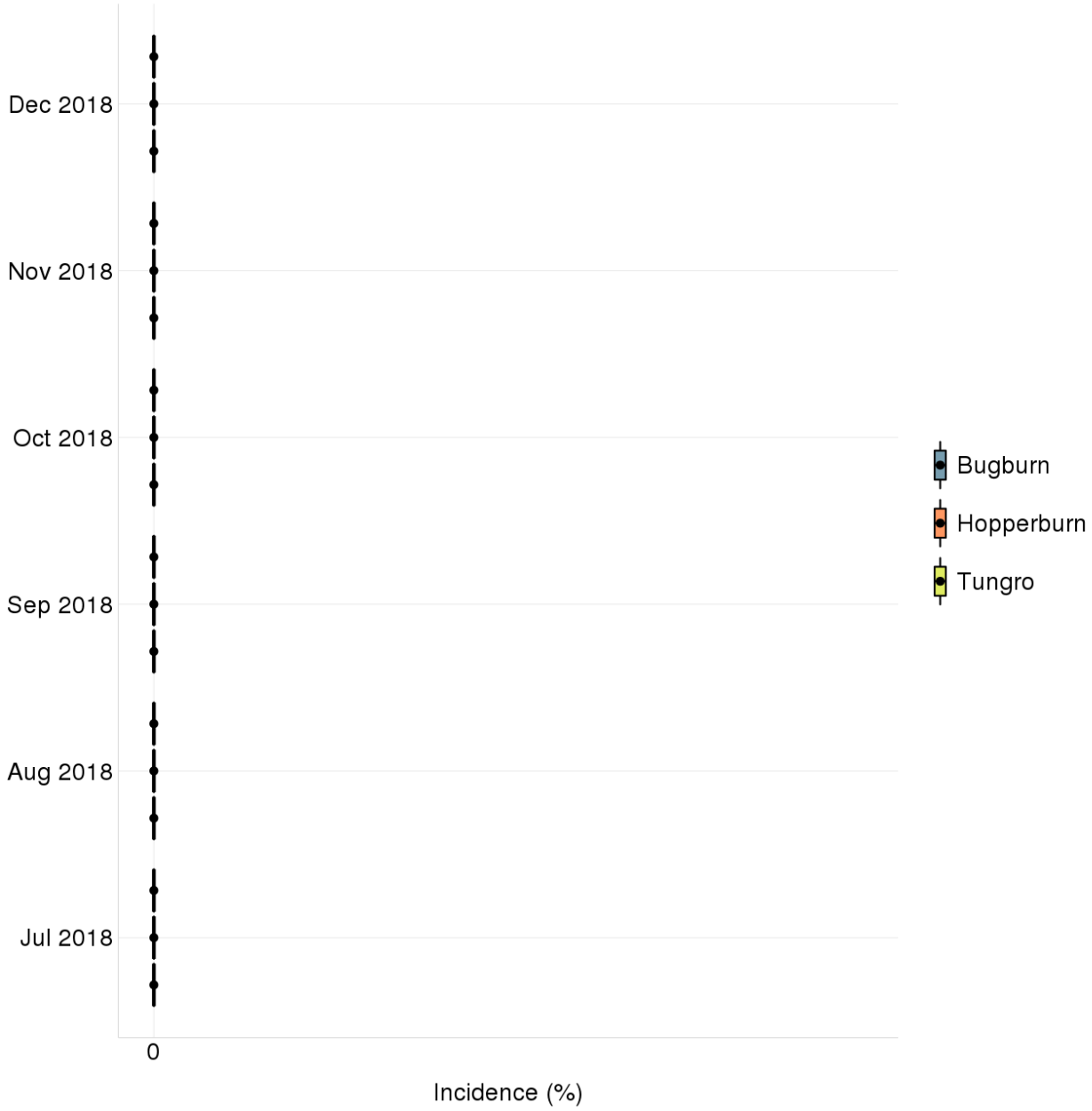


Figure 12. Incidence of bugburn, hopperburn and tungro in Region V, July 2018 to December 2018.

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

E. Insect count

The mean and median number of most insect pests during 2nd semesters of 2018 and 2019 were generally negligible (Figure 13 and 14). Only the rice bug with a population of 1bug/sqm on September and October of 2018 was noted. The median incidence of insect count was 0 in almost all months.

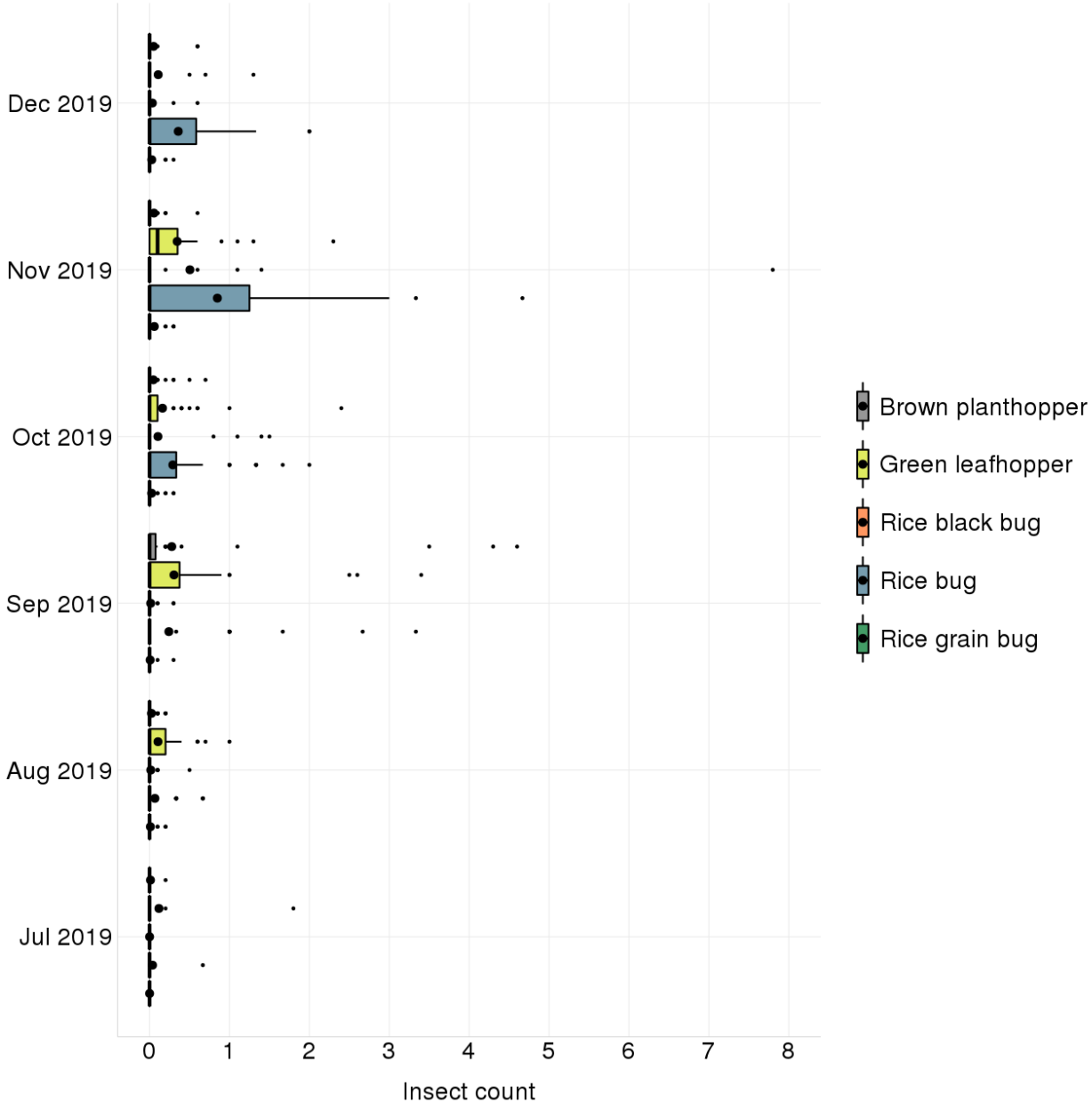


Figure 13. Count of insect pests in Region V, July 2019 to December 2019.

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

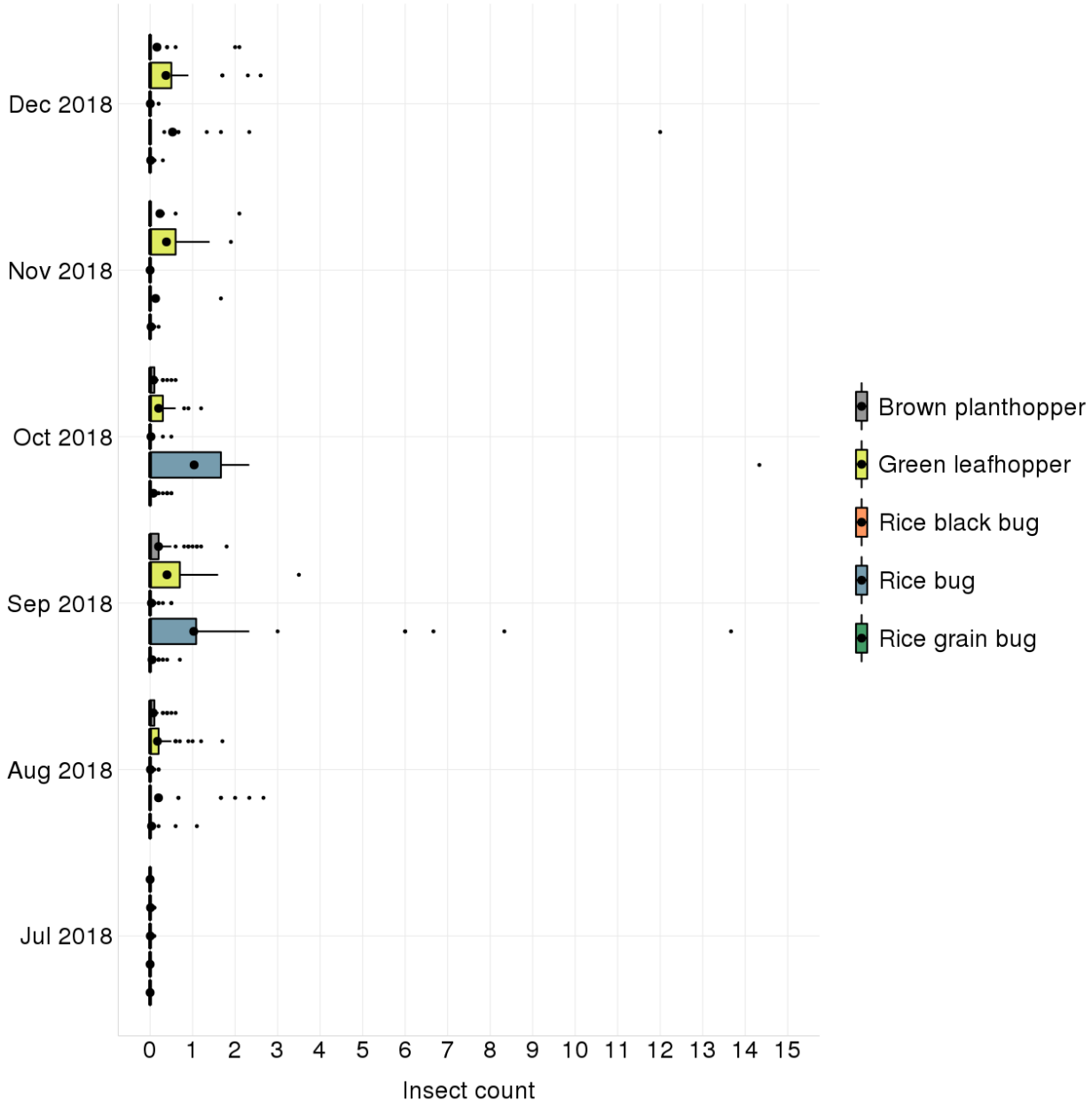


Figure 14. Count of insect pests in Region V, July 2018 to December 2018.

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

F. Rodent injury

The incidence of rodent injury during the period was negligible (Figure 15 and 16). The median incidence of rodent injury was 0 in almost all months.

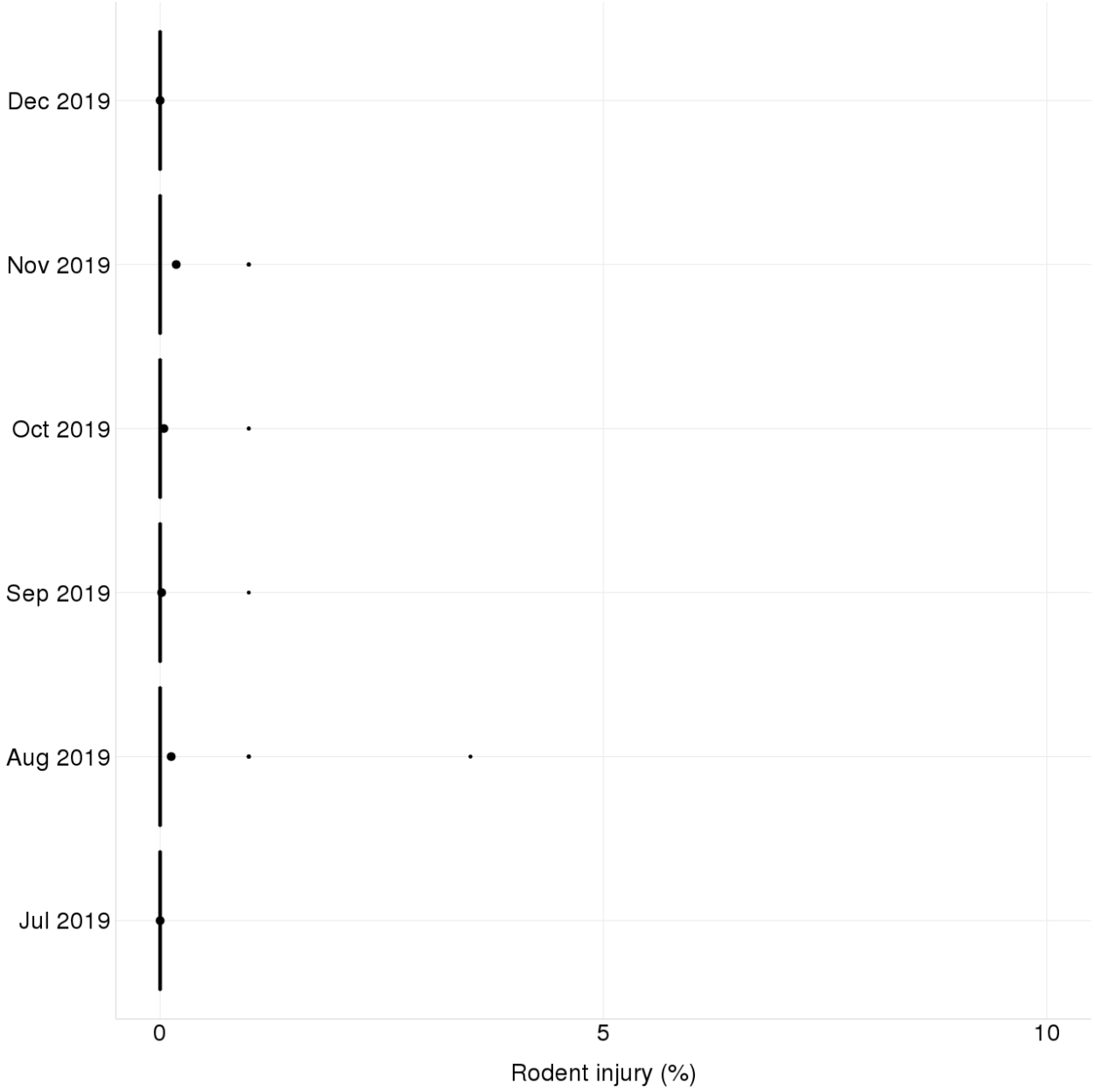


Figure 15. Incidence of rodent injury in Region V, July 2019 to December 2019.

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

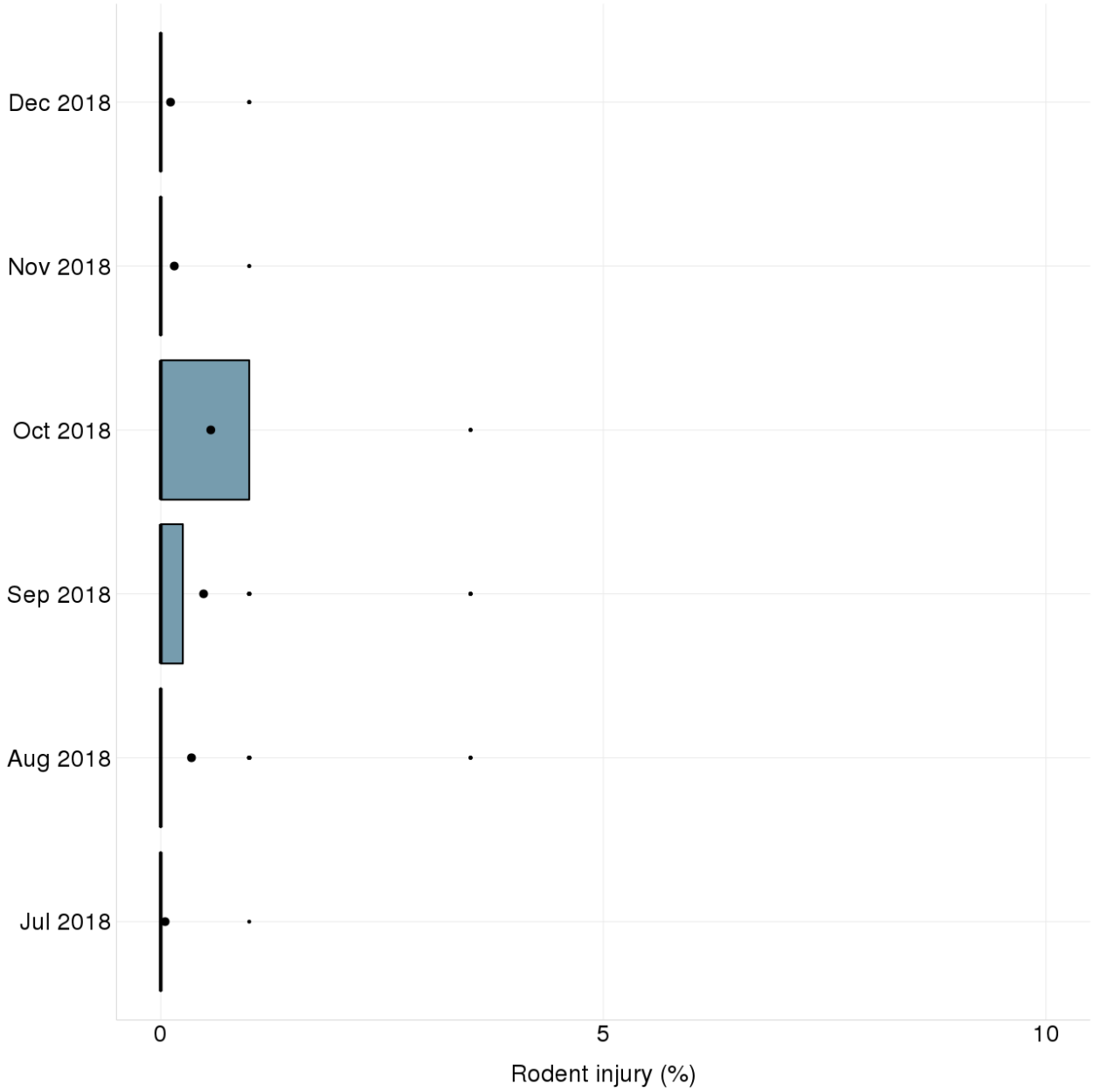


Figure 16. Incidence of rodent injury in Region V, July 2018 to December 2018.

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

Incidence of weed cover with a mean of 5.8% was observed in November 2018 (Figure 17 and 18). The median incidence of weed cover was 0 in almost all months.

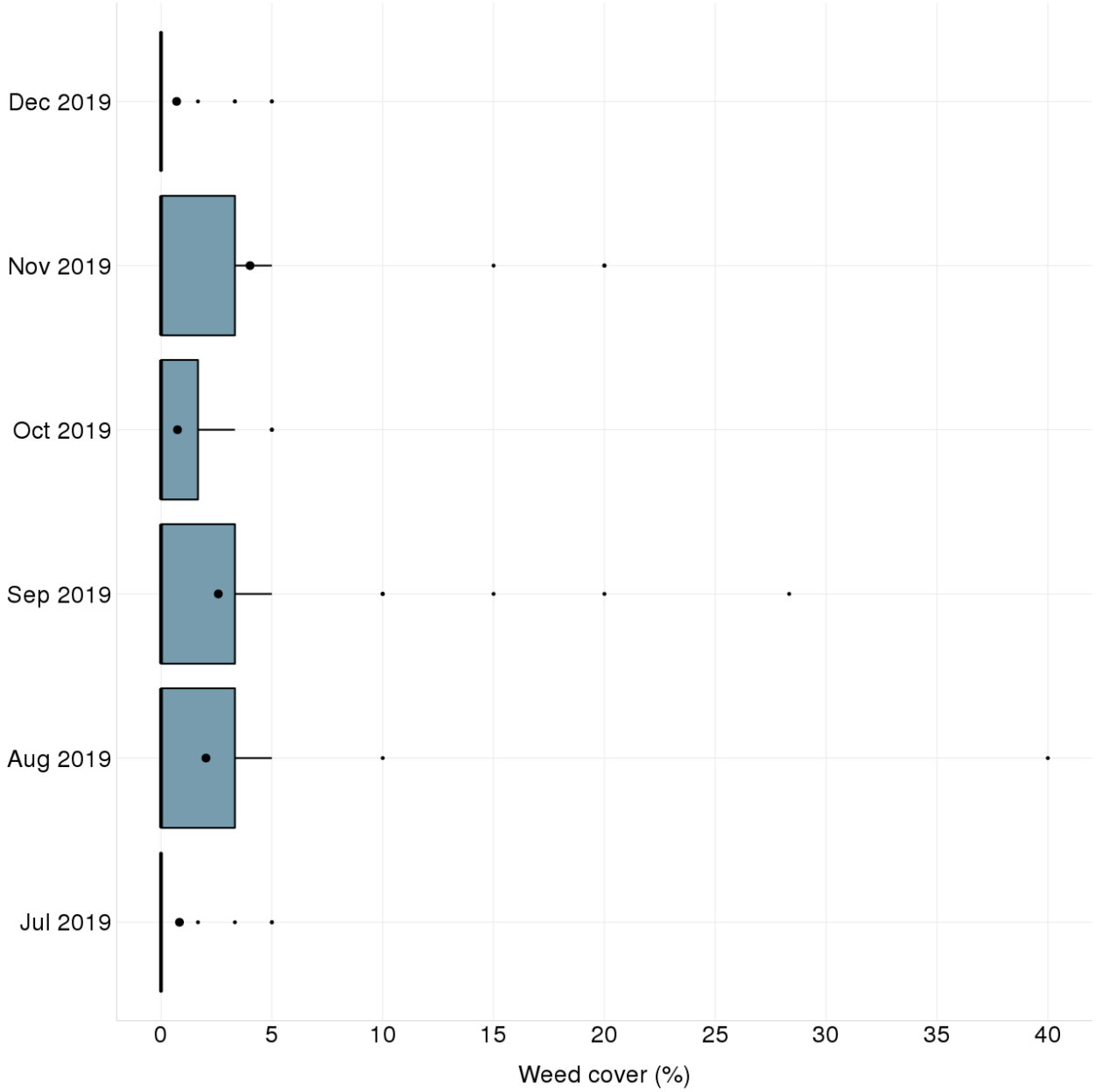


Figure 17. Percentage of weed cover in Region V, July 2019 to December 2019.

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

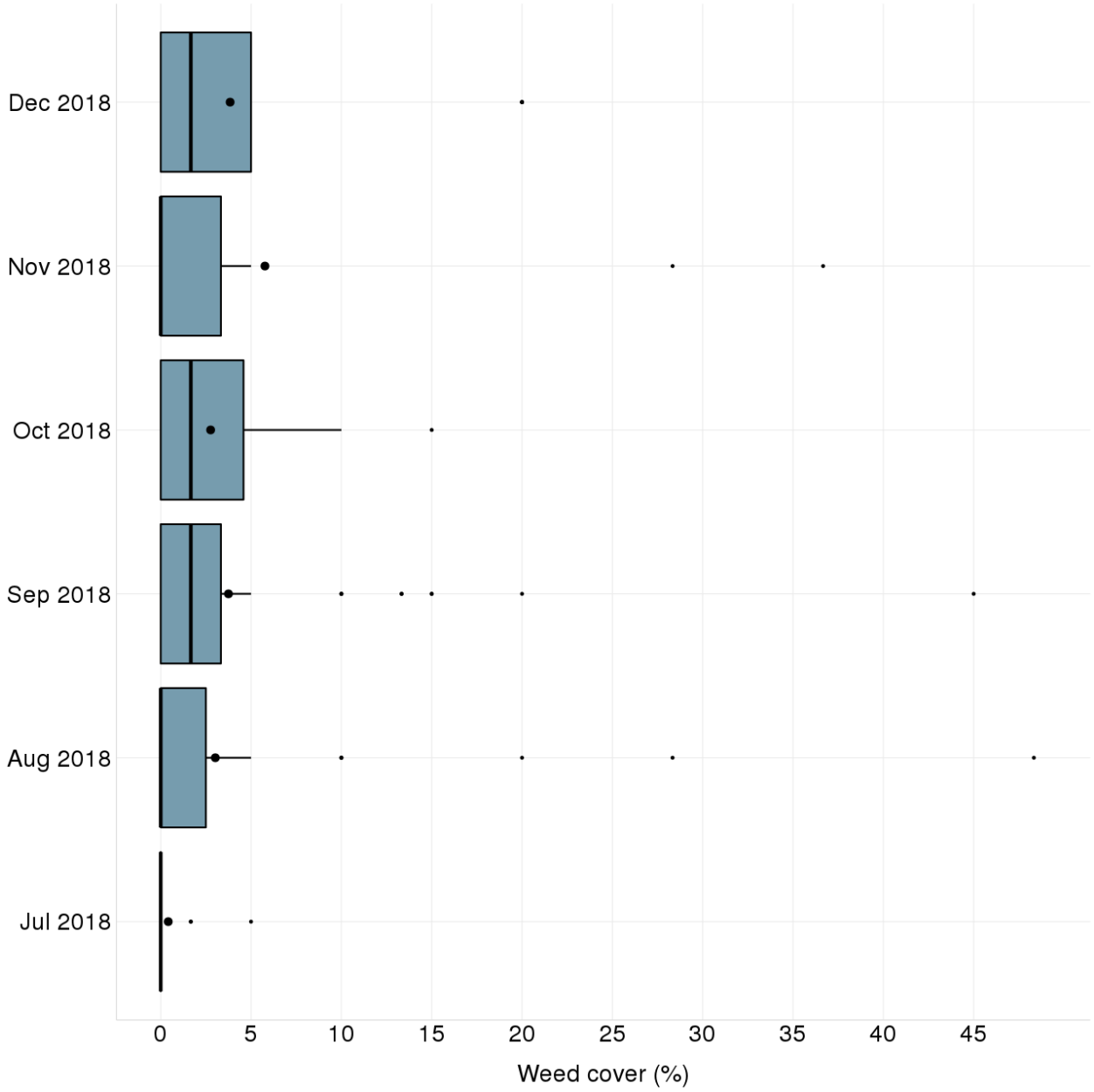


Figure 18. Percentage of weed cover in Region V, July 2018 to December 2018.

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 in at least one month was 5% or higher.

Bacterial leaf blight

1. The most practical and economical approach to manage bacterial leaf blight is to grow a resistant variety. Rotate varieties with different levels of resistance because a resistant variety may later become susceptible if grown continuously across several cropping seasons.
2. Use optimum seeding rate (80 kg per hectare) for direct-seeded rice and optimum plant spacing of 20 cm x 20 cm for transplanted rice. A dense plant canopy creates a favorable microclimate for disease development (reduced sunlight penetration, longer leaf wetness duration and cooler temperature).
3. Apply only the recommended amount of nitrogen and split into 3 applications. Excessive amount of nitrogen favors the development of most rice diseases.
4. Apply potassium and other required nutrients in addition to nitrogen. Potassium reduces the amount of most rice diseases.
5. Apply calcium silicate fertilizer or silicon fertilizer when feasible.
6. Remove weeds from the field that serve as alternate host of the pathogen.
7. Use copper fungicides as last resort and with cautions to control the disease. Copper fungicides accumulates in the soil surface (does not leach easily) and in the roots. Copper toxicity deforms roots and may eventually reduce yield.
8. If the previous crop had severe disease, cut the stubbles close to the ground and remove them from the field. Plow the field after harvest to incorporate infected stubbles and crop residues in the soil.
9. Avoid ratooning because the pathogen can survive on ratoon.
10. Keep the field dry during the fallow period to control the pathogens in infected stubbles.

Brown spot

1. The most practical and economical approach to manage brown spot is to grow a resistant variety
2. Brown spot is a seed borne disease and growing an infected seed will result to diseased plants during the cropping season. Use certified seeds or clean seeds to prevent infected seeds. Seeds can be disinfect by following these steps:
    1. Dissolve 1.5 kg salt in 40 liters of water.
    2. Soak seeds in the salt solution.
    3. Remove floating seeds.
    4. Rinse seeds 3 to 4 times with clean water.
3. Use optimum seeding rate (80 kg per hectare) for direct-seeded rice and optimum plant spacing of 20 cm x 20 cm for transplanted rice. A dense plant canopy reduces sunlight penetration, increases leaf wetness duration
4. When feasible, improve soil fertility by regularly monitoring nutrients in the soil and the application of required fertilizers.
5. If possible, investigate the occurrence of Akiochi, a nutritional disorder which is caused by excessive concentration of hydrogen sulfide in the soil and results in reduced nutrient uptake in some surveyed fields. It occurs in irrigated fields with poor drainage, have excessive organic matter, low rate of stubbles decomposition and with short fallow period.
6. Apply potassium and other required nutrients in addition to nitrogen. Potassium reduces the amount of most rice diseases.
7. Apply calcium silicate fertilizer or silicon fertilizer if this is available in the area.
8. Use fungicides as a last resort in controlling the disease. Apply fungicides, containing iprodione, propiconazole, azoxystrobin, trifloxystrobin, and carbendazim active ingredients. Seeds may also be treated with fungicides. Avoid repetitive use of a single active ingredient. Mix or alternate an active ingredient with an appropriate partner. Wherever

feasible, several strategies should be used together. Integrate the use of chemical pesticides with cultural practices.

9. If possible, irrigate the field continuously until one week before harvest. Do not drain the field for long periods because drought stress favors brown spot
10. Immediately plow the field after harvest to incorporate infected stubbles and crop residues in the soil.
11. Dry grains immediately after harvest to moisture content of at least 14%.
12. Store grains in sealed containers with moisture content of at least 14%.

Leaf blast and neck blast

1. The most practical and economical approach to manage blast is to grow a resistant variety. Rotate varieties with different levels of resistance because a resistant variety may later become susceptible if grown continuously across several cropping seasons.
2. Practice planting synchrony with defined 2 months fallow period in your area.
3. Use optimum seeding rate (80 kg per hectare) for direct-seeded rice and optimum plant spacing (e.g. 20 cm x 20 cm) for transplanted rice. A dense plant canopy creates a favorable microclimate for disease development (reduced sunlight penetration, longer leaf wetness duration and cooler temperature).
4. Apply only the recommended amount of nitrogen and split into 3 applications. Nitrogen makes the plant tissues softer and creates a dense canopy that results in favorable microclimate for disease development.
5. Apply potassium and other required nutrients in addition to nitrogen. Potassium reduces the amount of most rice diseases.
6. Apply calcium silicate fertilizer or silicon fertilizer when feasible.
7. Irrigate the field continuously until one week before harvest. Do not drain the field for long periods because drought stress favors blast.
8. Use fungicides as last resort in controlling the disease. To control neck blast, apply fungicide containing copper hydroxide, mancozeb, and benomyl active ingredients at late booting and heading stages and if it is

always raining. Pathogens become resistant to chemical pesticides if these are not used properly. Avoid repetitive use of a single active ingredient and mix or alternate an active ingredient with an appropriate partner. Integrate the use of chemical pesticides with cultural practices or non-chemical methods. Wherever feasible, several strategies should be used together.

9. If plants had severe disease, cut the stubbles close to the ground and remove them from the field. Immediately plow the field after harvest to incorporate infected stubbles in the soil.
10. Avoid ratooning because the pathogen can survive on ratoon. Keep the field dry during the fallow period to control the pathogens in infected stubbles.

Sheath blight

1. There is currently no variety with reliable resistance to sheath blight. Varieties are either moderately or highly susceptible.
2. Transplant 1 to 2 seedlings per hill using optimum plant spacing of 20 cm x 20 cm. A dense plant canopy creates a favorable microclimate for disease development (reduced sunlight penetration, longer leaf wetness duration and cooler temperature).
3. Manage the application of nutrient fertilizer. Apply only the recommended amount of nitrogen and split into 3 application. Excessive amount of nitrogen favors the development of sheath blight. Nitrogen makes the plant tissues softer and creates a dense canopy that results in favorable microclimate for disease development.
4. Apply potassium and other required nutrients in addition to nitrogen. Potassium reduces the amount of most rice diseases.
5. Apply calcium silicate fertilizer or silicon fertilizer when feasible.
6. Apply Trichoderma spp. to control sheath blight. The application of Trichoderma may also increase plant vigor. Purchase a registered product and follow the directions on how to use.
7. Keep the field free from weeds that served as alternate host of the disease.

8. Use fungicides as last resort in controlling the disease. Use registered fungicides containing azoxystrobin, difenoconazole and propiconazole active ingredient at 7 days after panicle differentiation to heading.
9. Avoid repetitive use of a single active ingredient. Mix or alternate an active ingredient with an appropriate partner. Integrate the use of chemical pesticides with cultural practices
10. If previous crop had severe disease, cut the stubbles close to the ground and remove them from the field or plow field immediately after harvest to incorporate infected stubbles into the soil.
11. Avoid ratooning because the pathogen can survive on ratoon.
12. Although the disease can survive on dead plant tissues, keep the field dry during fallow period. Drying may still reduce the survival of the pathogen.

Dead heart and whitehead caused by stemborer

1. The most practical and economical approach to manage whitehead is to grow a resistant variety. Rotate varieties with different levels of resistance because a resistant variety may later become susceptible if grown continuously across several cropping seasons.
2. Practice synchronous planting. If possible, establish crops in July to harvest crop before the peak of white head incidence. Also practice at least 2 months fallow period.
3. Raise level of irrigation water periodically to submerge the stem borer eggs masses on the lower parts of the plant.
4. Manage the application of nutrient fertilizers. Apply the required amount of nitrogen and splits into 3 application. Nitrogen makes the plant tissues softer and facilitates penetration of stemborer larvae.
5. Remove alternate hosts during the cropping season and fallow period.
6. If high infestation occurred, cut stubbles close to the ground and dry or remove stubbles from the field. Practice dry land preparation.
7. Observed presence of moths in the field and count stem borer egg masses. Two egg mass per m^2 is critical. Collect egg masses and store in a dry, clean bottle covered with cloth or net. Eggs usually hatch after 4-9 days. Hatching of collected WSB egg mass samples will determine if insecticides application is needed and its proper application timing. Stem

borer larva and parasitoid wasp may hatch from the collected egg masses. Apply insecticide only when more larva hatch than adult wasp from the collected egg masses. Apply proper insecticide two to three days after larva hatched from collected egg masses. For more accurate monitoring, collect batches egg masses every 2 to 3 days after moths were observes.

Rice bug

1. Rice bug feeds only in developing panicles of rice and grasses. Avoid early and late planting that prolong availability of rice bug food supply. If possible, farmers should target October crop harvest. Discourage out of season cropping.
2. Removed grassy weeds from rice fields, levees, and surrounding areas that served as alternate host of rice bug.
3. Practice two months fallow period to further limit rice bug food supply
4. Use contact insecticide as last resort in controlling rice bug. Use foul odor attractants like dead snails, frog or rats to aggregate rice bug population to facilitate easy insecticide application. Do not use insecticide to manage rice bug in rice younger than heading stage.

Weeds

1. Plow and harrow the field several times before crop establishment. If feasible, start land preparation 3-4 weeks before planting.
2. Level the field to ensure a constant water level that controls weeds. Avoid high spots where weeds can grow.
3. Maintain a 2-5 cm water level in the field to minimize weed emergence. If water is sufficient, flood the fields until closure of the plant canopy.
4. Practice stale seedbed technique. According to the IRRI Knowledge Bank (http://www.knowledgebank.irri.org/step-by-step-production/growth/weed-management/stale-seedbed-technique), this technique is done as follows:
    a. Perform tillage operations. Plow, harrow, and level the field.
    b. Stimulate weed emergence by light irrigation.

c. Irrigate the field at least two weeks before sowing.

d. Maintain enough soil moisture to allow weeds to germinate.

e. Kill the emerged seedlings using non-selective herbicides (e.g., glyphosate) or light cultivation.

f. If the soil condition is suitable for sowing, broadcast seeds without further tillage operations. Tillage could bring more weed seeds near the soil surface, thus promoting weed germination.

5. Apply pre-emergence herbicide (e.g., pretilachlor + fenclorim 2-3 days after sowing). Follow recommended amount and timing of product and water condition in the field as indicated in the label. Do not use the same herbicide over long periods to prevent herbicide resistance.

6. If grass weeds are the main weed problem, apply early post-emergence herbicide.

7. If weedy rice is a problem, apply glyphosate before land preparation or seeding. The application of pretilachlor with fenchlorim during final land preparation or levelling has also been reported to reduce weedy rice.

8. If feasible, plow the field during fallow to kill weeds and prevent the build-up of weed seeds in the soil.

Annexes

Region V		2018						2019					
Camarines Sur		JUL	AUG	SEP	OCT	NOV	DEC	JUL	AUG	SEP	OCT	NOV	DEC
A. FOLIAR DISEASES													
Bacterial leaf blight	mean	1.7	0.6	1.6	1.1	2.3	1.4	0.1	0.6	0.5	0.3	0.5	0.1
	median	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	33.2	5.0	11.2	15.3	14.2	10.0	1.0	8.5	7.4	4.1	3.1	1.0
	count	20	58	63	38	13	35	17	59	58	46	21	26
Bacterial leaf streak	mean	0.1	0.5	0.5	0.2	0.1	0.5	0.0	0.1	0.1	0.1	0.2	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.5	8.6	6.3	3.2	1.1	4.9	0.1	1.5	1.5	0.8	1.2	0.3
	count	20	58	63	38	13	35	17	59	58	46	21	26
Brown spot	mean	1.2	1.2	2.7	2.7	3.9	4.5	1.8	0.8	2.8	3.1	2.4	1.1
	median	0.0	0.2	0.2	0.1	0.0	0.1	0.0	0.1	1.5	0.8	0.9	0.0
	maximum	9.2	14.6	15.8	30.5	24.8	23.2	14.3	4.1	22.2	24.8	16.2	10.3
	count	20	58	63	38	13	35	17	59	58	46	21	26
Leaf blast	mean	0.0	0.9	0.8	0.8	1.9	1.6	0.6	0.6	0.9	0.5	0.9	0.7
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.5	10.3	6.0	9.6	13.1	11.1	6.4	9.3	9.6	12.5	8.3	8.6
	count	20	58	63	38	13	35	17	59	58	46	21	26
Red stripe	mean	0.0	0.2	0.2	0.1	0.0	1.1	0.4	0.4	0.9	0.9	0.3	0.1
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.3	2.5	2.6	1.2	0.2	22.8	3.2	3.6	24.1	18.0	1.5	1.7
	count	20	58	63	38	13	35	17	59	58	46	21	26
B. DISEASE OR PEST INJURY ON TILLERS													
Deadheart	mean	0.2	0.4	0.4	0.8	0.6	0.7	0.0	0.1	0.6	0.2	0.2	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	2.4	4.5	2.6	9.2	5.3	6.0	0.0	5.9	6.6	3.1	2.3	0.6
	count	20	58	63	38	13	35	17	59	58	46	21	26
Sheath Blight	mean	0.0	0.8	0.4	1.1	0.0	0.3	0.0	0.2	0.4	0.2	0.7	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	13.3	8.5	10.8	0.0	6.6	0.0	6.7	16.3	4.9	9.4	0.0
	count	20	58	63	38	13	35	17	59	58	46	21	26

LEGEND	
Blue font	> 5 to 10 % incidence of diseases, insect pest injuries or weed cover or 5 to 10 insects.
Red font	> 10 % incidence of diseases, insect pest injuries or weed cover or > 10 insects.

Annex 1. Incidence of diseases or pest injuries during the previous 2nd semesters.

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

Region V		2018						2019					
Camarines Sur		JUL	AUG	SEP	OCT	NOV	DEC	JUL	AUG	SEP	OCT	NOV	DEC
C. DISEASE OR PEST INJURY ON PANICLES													
Neck Blast	mean	0.0	0.6	0.5	0.5	4.0	0.2	0.0	2.3	0.4	0.0	0.0	0.0
	median	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	3.1	4.3	3.8	4.0	0.8	0.0	12.4	4.0	0.8	0.0	0.0
	count	0	5	27	23	1	5	0	6	18	27	8	9
Whitehead	mean	0.0	2.4	1.3	4.9	0.0	1.5	0.0	0.4	0.5	0.2	3.4	0.5
	median	0.0	1.3	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
	maximum	0.0	7.8	10.0	30.0	0.0	6.6	0.0	2.4	7.7	1.7	11.4	2.4
	count	0	5	27	23	1	5	0	6	18	27	8	9
D. SYSTEMIC DISEASE OR PEST INJURY													
Bugburn	mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	count	20	58	63	38	13	35	17	59	58	46	21	26
Hopperburn	mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	count	20	58	63	38	13	35	17	59	58	46	21	26
Tungro	mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.7	5.3	0.0
	count	20	58	63	38	13	35	17	59	58	46	21	26

LEGEND	
Blue font	> 5 to 10 % incidence of diseases, insect pest injuries or weed cover or 5 to 10 insects.
Red font	> 10 % incidence of diseases, insect pest injuries or weed cover or > 10 insects.

Annex 2. Incidence of diseases or pest injuries during the previous 2nd semesters.

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

Region V		2018						2019					
Camarines Sur		JUL	AUG	SEP	OCT	NOV	DEC	JUL	AUG	SEP	OCT	NOV	DEC
E. INSECT COUNT													
Brown Planthopper	mean	0.0	0.1	0.2	0.1	0.2	0.2	0.0	0.0	0.3	0.1	0.1	0.1
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	0.6	1.8	0.6	2.1	2.1	0.2	0.2	4.6	0.7	0.6	0.6
	count	20	58	63	38	13	35	17	59	58	46	21	26
Green Leafhopper	mean	0.0	0.2	0.4	0.2	0.4	0.4	0.0	0.1	0.3	0.1	0.3	0.1
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	maximum	0.1	1.7	3.5	1.2	1.9	2.6	0.2	1.0	3.4	2.4	2.3	1.3
	count	20	58	63	38	13	35	17	59	58	46	21	26
Rice Black Bug	mean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.1	0.2	0.5	0.5	0.0	0.2	0.0	0.5	0.3	1.5	7.8	0.6
	count	20	58	63	38	13	35	17	59	58	46	21	26
Rice Bug	mean	0.0	0.2	1.0	1.0	0.1	0.5	0.0	0.1	0.2	0.3	0.9	0.4
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	2.7	13.7	14.3	1.7	12.0	0.7	0.7	3.3	2.0	4.7	2.0
	count	20	58	63	38	13	35	17	59	58	46	21	26
Rice Grain Bug	mean	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	0.0	1.1	0.7	0.5	0.2	0.3	0.0	0.2	0.3	0.3	0.3	0.3
	count	20	58	63	38	13	35	17	59	58	46	21	26
F. RODENT INJURY	mean	0.1	0.4	0.5	0.6	0.2	0.1	0.0	0.1	0.0	0.0	0.2	0.0
	median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	1.0	3.5	3.5	3.5	1.0	1.0	0.0	3.5	1.0	1.0	1.0	0.0
	count	20	58	63	38	13	35	17	59	58	46	21	26
G. WEED COVER	mean	0.4	3.1	3.8	2.8	5.8	4.0	0.9	2.1	2.6	0.8	4.2	0.7
	median	0.0	0.0	1.7	1.7	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
	maximum	5.0	48.3	45.0	15.0	36.7	20.0	5.0	40.0	28.3	5.0	20.0	5.0
	count	20	58	63	38	13	35	17	59	58	46	21	26

LEGEND	
Blue font	> 5 to 10 % incidence of diseases, insect pest injuries or weed cover or 5 to 10 insects.
Red font	> 10 % incidence of diseases, insect pest injuries or weed cover or > 10 insects.

Annex 3. Incidence of pest injuries, count of insect pests, and percentage of weed cover during the previous 2nd semesters.

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

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