

Questionnaire	Enumerator	Surveyed village	region	province	where were you when you started talking to the farmer?
Prac000	Wills	KoreKore to Asaro	EHP		Farmer's house
100	Willem	Kami 2 Lufa	EHP		Farmer's house
200	Deane Woruba	Kami2 Lufa	EHP		Village meeting
300	Kai LaLi	Kam2 Lufa	EHP		Farmer's house
400	Wills	Fogupavi Lagaiee	EHP		Farmer's house
500	Wills	Lapane Karuka	EHP		Farmer's house
600	Deane Woruba	Kuruka Lufa	EHP		Farmer's house
700	Kai LaLi	Kuruka Lufa	EHP		Farmer's house
800	Kai LaLi	KoreKore to Asaro	EHP		Market
900	Deane Woruba	KoreKore to Asaro	EHP		Village meeting
1000	Wills	KoreKore to Asaro	EHP		neighboring village house
1100	Wills	KoreKore to Asaro	EHP		meeting area of village
1200	Jeffery Yapo	KoreKore to Asaro	EHP		Farmer's house

1300	Wills	Mu Yapokokil (Sina Sina)	Kamtai	Simbu	Distric office
1400	Deane Woruba	Kularemil , Sinasina	Kamtai	Simbu	Distric office
1500	Deane Woruba	Kularemil , Sinasina	Kamtai	Simbu	Distric office
1600	Jeffery Yapo	Munule, SinaSina	Kamtai	Simbu	Distric office
1700	Kai LaLi	Yapakure , Sinasina	Kamtai	Simbu	Roadside
1800	Wills	Jericho village	Kamtai	Simbu	Distric office
1900	Kai LaLi	Haina Haulabol,	Kamtai	Simbu	Roadside
2000	Jeffery Yapo	Gaima	Gumuni	Simbu	Farmer's house
2100	Deane Woruba	Omkaloi	Gumuni	Simbu	Village meeting
2200	Kai LaLi	Omkolai	Gumuni	Simbu	Village meeting
2300	Jeffery Yapo	Kel	Gumuni	Simbu	Farmer's garden
2400	Wills	Kawikul, Baul Dom	Gumuni	Simbu	Farmer's garden
2500	Kai LaLi	Mormul	Gumuni	Simbu	Farmer's garden
2600	Deane Woruba	Moro Maule	Gumuni	Simbu	Farmer's house
2700	survey lost before use				
2800	wills	Tambar	Hargen Central	Western Highland	Farmer's house

2900 Deane Woruba	Kombaip	Hargen Central	Western Highland	Farmer's house
3000 Kai LaLi	Tambor	Hargen Central	Western Highland	Farmer's house
3100 Wills	Lantiro	Hargen Central	Western Highland	Farmer's garden
3200 Jeffery Yapo	Tambra	Hargen Central	Western Highland	Famer's house
3300 Jeffery Yapo	Kelue	Hargen Central	Western Highland	Farmer's garden

NEW GARDEN

Date of survey	Time start of survey	Date/tiem end of survey	Hours of survey	1:How long did it take to walk to the garden (min)	2. What was the terrain like to walk to this garden?	3: Latitude	3:Longitude
1/27/2014 3:30:00pm	15:00:00	17:15:00	02:15:00	15	sloping, rugged	6 00 39.1 S	145 18 06.1 E
1/28/2014 8:50am	8:50 AM	11:00 AM	02:10:00	15-20	sloping	6 17 7 S	145 25 3 E
1/28/2014 9:45:00 AM	9:45:00 AM	12:20:00 PM	02:35:00				
1/28/2014 9:33:00am	9:33:00 AM	12:40:00 PM	03:07:00	3	sloping		
1/28/2014 2:03:00	2:03:00 PM	2:42:00 PM	00:39:00				
1/29/2014 9:17:00 am	9:17:00 AM	10:37 AM	01:20:00	20-30	rugged	6 20 24.4 s	145 21 57.2 E
1/29/2014 9:30:00 AM	9:30:00 AM	1:30:00 PM	4:00:00	20	Steep	6° 2' 45" S	145° 1' 07" E
1/29/2014 9:15:00 am	9:15:00 AM	11:56:00 AM	2:41:00	60	sloping		
1/30/2014 9:44:00 am	9:40:00 AM	11:37:00 AM	1:57:00	15	Flat		
1/30/2014 9:55:00 am	9:55:00 AM			40	sloping		
1/30/2014 9:44:00 am	9:44:00 AM	11:42:00	1:58:00	40	Steep		
1/30/2014 11:45 am	11:45:00 AM	12:46:00 PM	1:01:00	20	Flat	6 01 15.7 s	145 18 29.7 E
1/30/2014 9:44:00 am	9:44:00 AM	11:42:00 AM	1:58:00	15-18	sloping		

1/31/2014	11:07:00 am	11:07:00 AM	12:04:00 PM	0:57:00	2 sloping	6 5 23.0 S	145 06 06.9 E
1/31/2014	11:20:00 am	11:20:00	12:00:00 PM	0:40:00	10 sloping	6 5 16.6 S	145 2 3.3 E
1/31/2014	12:00:00	12:00:00	12:45:00 PM	0:45:00	10 sloping	6 5 32.2 S	145 1 57.6 E
1/31/2014	11:09:00 am	11:09:00 AM	12:30:00 PM	1:21:00			
1/31/2014	11:05:00 am			0:00:00	2 sloping		
1/31/2014	12:07:00 pm	12:07:00 PM	1:50:00 PM	1:43:00	5 sloping	6 05 38 S	145 01 14 E
1/31/2014	12:09:00 pm	12:09:00 PM	12:49:00 PM	0:40:00	3 sloping		
3/2/2014	11:49	11:49:00 AM	12:52:00 PM	1:03:00	35 sloping		
3/2/2014		1:00:00 PM	1:45:00 PM	0:45:00	20	6 11 2.9 S	144 56 47.6 E
3/2/2014	12:53	12:53:00 PM	2:32:00 PM	1:39:00	3 sloping		
4/2/2014	10:14	10:14:00 AM	11:30:00 AM	1:16:00	14 sloping		
4/2/2014	10:51	10:51:00 AM	12:50:00 PM	1:59:00	5 steep	6 11 4 S	144 56 52 E
4/2/2014	11:09	11:09:00 AM	12:41:00 PM	1:32:00	3 sloping		
4/2/2014	11:20	11:20:00 AM	12:00:00 PM	0:40:00	20 sloping	6 7 13.1 S	144 55 31.9 E
6/2/2014	10:05	10:05 AM	11:14 AM	1:09:00	2 Flat	5 46 36 S	144 14 58 E

6/2/2014 10:15	10:15 AM	11:15 AM	1:00:00	20 sloping		
6/2/2014 9:40	9:40 AM	12:10 PM	2:30:00	5 Flat		
7/2/2014 9:16	9:16 AM	10:00 AM	0:44:00	0 flat	5 49 32 S	144 18 57 E
6/2/2014	10:09:00 AM	10:56:00 AM	0:47:00	10 Flat		
7/2/2014 11:25	11:25 AM	12:13 PM	0:48:00			

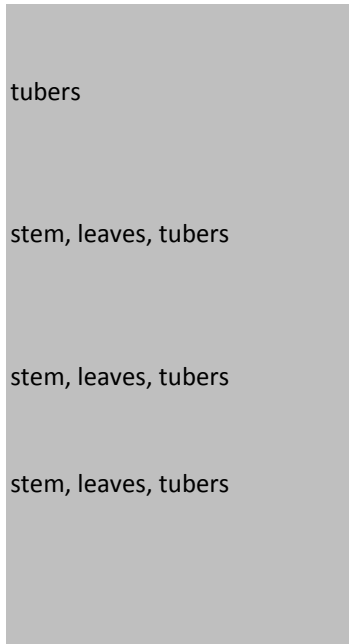
3: Altitude	6. How many years was this garden under fallow last time?	Years for mean	13. How long since this land came out of the fallow? (years)	14. How many plantings of sweet potato have there been in this new garden?	15. How long ago were the sweet potatoes in this garden planted? (month)	17. What do you think the sweet potato yield will be in this garden?
1628	0.25	0.25	3	1	3	low
1610	50+	50	0.08	1	1	high
	4	4	5 years	2	3	medium
1950	2	2	5 mo	1	5	high
2042	9	9	9	3	3 month ago	high
	5-6	5.50	5-6 years	1	3 month ago	high
	1-2	1.5	2 years	2	3 month ago	medium
	1	1	1 year	1	3 month ago	high
	30+	30	12	1	5+	high
1558	3	3	4mo	1	4 mo	high
	4 mo	0.33	3 mo	1	3 month ago	high

1955	10+	10	7 mo	1	5+	high
1962	11	11	2 mo	0		high
1945	20+	20		1	5+	high
	5 mo	0.42	5mo	50	5mo	high
	2	2	6mo	1	4mo	medium
1934	0.5	0.5	1 yr	2	3mo	low
	1	1	1.5 yr	1	more than 5 mo	medium
	10	10	6mo	1	2mo ago	high
1592	0	0	3	2	5mo	high
	0.5	0.5		3	3mo	low
	20+	20	6	1	more than 5 mo	medium
1554	0.25	0.25	2-3 month	1	3 month ago	medium
	20	20	16-18 mo	1	2mo ago	high
1726			1 year	1	3 month ago	high
1749	2	2	3	1	3 month ago	high

	6	6	1	1 3 month ago	high
	1	1	3	2 3 month ago	medium
1646 6-8		7	2	1 2 mo	high
	1	1	4	1 4 mo	high
	7.560345				

28. Which part of sweet potato plants get attacked by pests?	28: local name and type of pest they have noticed, the incidence of attack and severity	29. What time of the year or cropping cycle are the pests most active? Make separate note for each type of pest named above.
stem, leaves, tubers	SP weevil: attach when potato is ready, cricket: as soon as they plant	Pest are always there depends on age of crop that it then attacks
tuber	SP weevil: Sep-Dec, Cricket; Dec-Aug	SP weevil: Sep-Dec, Cricket : Dec-Aut
tuber	weevil during dry season	during maturity period of SP and dry season
tuber	weevil during dry season	weevil: dry season, may-june
no		does not have pest problem
stem, leaves, tubers	cricket, cut worm, insect attack new gardens	June-Sept
stem, leaves, roots, tubers	snails, cricket, weevils	may-august
tuber	cricket: slight damage, weevil: dry season, major damage	cricket: wet season, weevil: dry season
stem leaves, tubers	weevil, dry season	cricket: wet season, weevil: dry season
stem, leaves, tubers	SP weevil: during dry season, major yield loss, ants: attacks newly planted vines	all year around
stem, leaves, roots, tubers	weevil (senegaha): all year around, major yield loss,,; rat: reduce crop yield	weevil: active when crop is 4 month old

stem, leaves, tubers	weevil, dry season, major yield loss	weevil, during dry season (June-Aug)
root, tubers	weevil	weevils in dry season
stem, leaves, roots, tubers	catapillar type, found in fresh; grasshopper, eat leaves	catapillar: 5-6 mo when SP become mature, grasshopper: all year around
stem, leaves, tubers	when crop is young and close to harvest	all year around
tubers	weevil, dry season, small yield loss	weevil, during March to July
stem, leaves, roots, tubers	weevils, scab, gall mite	scab, gall mite at yielding stage, weevil during dry season
stem, leaves, tubers	weevil: spoil flesh, all year around	weevil: at maturity stage, 2-6 months
stem, leaves, roots, tubers	weevil: eat tubers, cricket, eat leaves; small black snake, cut roots	weevil: dry season; cricket: all year around; small black snake, during new planting
stem, leaves, roots, tubers	weevil, scab	after 2-3 month of planting
stem, leaves, tubers	grasshopper, damdom (?), weevil	all pests are active as soon as crop put leaves (>2mo)
stem, leaves, tubers	weevil, cricket, yellow catarpillar, all year around	all pests occur all year around
stem, leaves	unknown insects attacking leaves	when SP are 2-2.5 mo old
stem, leaves, tubers	weevil	weevil attack during dry season
tubers	weevil, dry season, small yield decline; weevil, all year around	



tubers

weevils

all year around

stem, leaves, tubers

leaves damaged by scabs, oribius,
hopping insects after 2-3 month old

no specific time or month

stem, leaves, tubers

caterpillars: all year around though
damage is insignificant, weevil: during
dry season, major yield loss

unpredictable

stem, leaves, tubers

pests are present, reduce yield, when
SP is 3-5 month old

when crop is 3-5 monts old

30. What action do you take to control or prevent these types of pests? Make separate note for each type of pest named above.	31. Which part of sweet potato plants get attacked by plant diseases?	31: description using local names the types of diseases they have noticed, the incidence of attack and severity
none no action taken. Ants to control the weevil.	stem and leaves roots	Gall mite & Scab: occurs all year around but common during wet season, no idea how it affects crop yield tubers become soft with no reasons
no : don't know how and NARI can help me	no	no disease but during dry season all SP normally die
no control or prevention	stem and leaves	occur in all year around, not severe, low impact on yield
nothing	no	
no purchase chemicals from store and spray (KARATE = name)	roots, tubers no	leaves turned yellow and tubers rot
do nothing	stem and leaves	gall on leaf
no control method	stem and leaves	
no control or prevention	stem and leaves	scab and gall mite, all year around
remove infested vine; for rat, cover the exposed vine	leaves and tuber	

no control method	stem and leaves	scab and gall mite, all year around
do nothing	stem and leaves	galls mite
harvest as soon as they find	stem and leaves	no name: black dots on the skin, swollen skin
no control method	stem, leaves, roots, tuber	once tuber is formed, vines rot and affect yield Gall mite & Scab: occurs all year around but common during wet season, no idea how it affects crop yield
breaking up mounds to expose tubers to the heat	tubers	
no control		
no control	leaves and tuber	scab and gall mite
do nothing	stem, leaves	gall mite, catapillars
do nothing	stem, leaves, tuber	leaf rolls
biological control - use chicken	stem, leaves, roots,	gall mite, scab
no control	stem, leaves,	rust, scab, gall mite
no action taken. use piper leaves, Kom grass leaves, and fish lass leaves (tephrosia) on surface of mound to control SP weevil	stem, leaves,	galls mite
patting up of soil under the SP vine where the tubers are	tubers	gall mite

cover tubers well	stem leaves	leaves crumbled up occasionally when SP are at the age of 203 months and reduce tubers numbers and weight drops
very hard to control	tubers	
no action taken	stem leaves	gall mite: all year around, planting materials are affected
no action taken	stem, leaves, tubers	unknown disease, reduce yield

32. What time of the year or cropping cycle are the diseases most active? Make separate note for each type of disease named above.

33. What action do you take to control or prevent these types of diseases? Make separate note for each type of disease named above.

35. Is the planting material you use certified, disease tested or special in any way?

occurs throughout the year	choosing planting materials not affected by the disease	no
unseasonal	no control /prevention method	no
		no, just from old garden
all year around	no control/prevention	no, just from old garden
		no
Oct-Jan	leave it fallow and go to new garden	nil
		no, just from old garden
diseases most active during rainy season	do nothing	no
all year around	no control /prevention method	no it isn't
all year around	no control /prevention method	no
gall mite, scab at 2-5 month time	no control /prevention method	no

scab and gall mite occur 3-4 month after planting	no control /prevention method	no
all year around	break off galled stem and leaves	no
maturity of tuber	no control/prevention	no
first tuber formation to middle age of harvest	no control/prevention	no
gall mite, all year around	no control /prevention method	no
		no
during the harvesting time	no control	no
gall mite, cattapillar, all year around	do nothing	no
when SP are in the mid-maturity age	do nothing	nil
during the maturity stage	do nothing	no
all year around	no	no
during the rainy season	manual removal of gall-affected leaves/stem	no
all year around	no control	no

leaves crumbled up - always present, all year around

do nothing

no

all year around

nil

nil

all year around

no control

no

3-5 month old

no control

no

<p>38. List your top three concerns about sweet potato pests or diseases; what problems do most want fixed, new research to help grown healthier crops?</p>			
<p>weevil weevil, unexplained softening tubers</p>			<p>46: Check the tubers for insect holes (weevils or other grubs). location 1</p> <p>46 location 2</p>
<p>weevil, cricket, scales</p>			
<p>weevil none</p>			
<p>weevil, nematode, insect improving soil fertility, control insects</p>	<p>none</p>	<p>none</p>	<p>none</p>
<p>weevil, cricket</p>			
<p>weevil, cricket</p>		<p>3-8 mm</p>	
<p>weevil</p>			
<p>weevil, scab/gall mite, rat</p>	<p>none</p>	<p>none</p>	<p>few just detectable</p>
			<p>47: Check the tubers and rate how many insect holes there are, location 1</p>

weevil, scab, mite	less than 3mm	none	obvious
new variety to resist pest; new research for method to control pest; need awareness weevil in dry season, low yield reduce tuber, repeating same land	none	none	none
weevil, gall mite			
weevil, yield decline, soil improvement	between 3-8 mm	less than 3 mm	many holes in tubers
scab, weevil, gall mite			
weevil	none		
scab, weevil, soil fertility	none	less than 3 mm	few just detectable
new technologies, new varieties	less than 3mm	between 3-8 mm	many holes in tubers
weevil, rust, grass hoppers			
scab, slow growth, insects			
weevil, gall mite	less than 3mm		few just detectable
weevil			

weevil

scab, weevil, soil fertility

weevil, gall mite

soil fertility, new variety of SP,
sustain crop productivity

47: location 2

48: Split open the base of the stem of the sweet potato plant and check for the presence of weevils or borers in the stem, location 1

48: location 2

49: What name do you call this variety of sweet potato? location 1

none

none

none

carrot

few just detectable

none

I don't care

few just detectable

none

none

I don't care

I don't care

I don't care

Eana

Kenba

Marasota

none

none

none

susan's black eye

wagi besta

carrot kaukau

none

none

none

wagi besta

wagi besta

many holes in tubers

larvae present

larvae presnt

susan's black eye

none

I don't care

few just detectable

none

none

Sugar

many holes in tubers

tunnels visible

tunnels visible

wagi besta

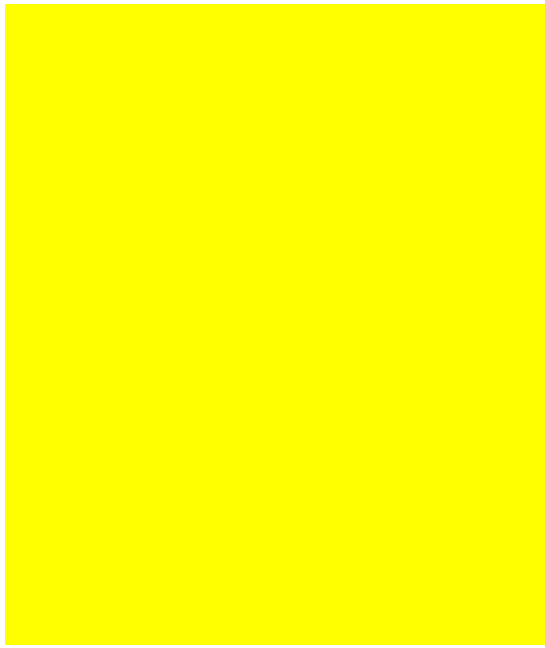
Goroka guy

I don't care

tunnels visible

I don't care

Korowes



Rachel's found

Baya Makep

cheese pop

	49: location 2	50: How old (months) is the plant that was dug up? location 1	50: location 2	51: Have tubers already been harvested from this plant? location 1	51: location 2	52: Soil sampling (0-10 cm)	55a: Healthy plants with large dark-green leaves and dense canopy	55b: all leaves smallish and light or olive green	55c: Oldest leaves yellowing or drying up
I don't care		2	2	no	no	y			
Marasoa		1	1	no	no			y	
Wagi besta									
Wagi besta	1mo	1mo		no	no				
						y			
gimane		2	2	no	no	y			
I don't care	3 mo	3 mo		no	no		y	y	
carot kaukau			7		2 times	y			
I don't care		4	4	1	1			y	
I don't care		3	3	no	no				

Okangai	1 mo	none	once			y	
Wagi besta	3	3			y		
Susan's black eye	5	5 no	no		y		
Susan's black eye	4	4 n	no		y	y	
gaigol	4	4 no	no				
Susan's black eye	6	6	1	1		y	y
					y		
I don't care	5	5	0	3			y
Goroka Guy	3	3 no	no		y		y
Wagi besta	6	6	4	4	y		
Wagi besta	2	2 no	no				
Wagi besta	2	1.5 no	no				y
I don't care	7	7	3	3	y		
Korowes	3	3 no	no		y		

Rachel's found

7

7

4

4

y

3 month SP

2

2

0

0

sugar

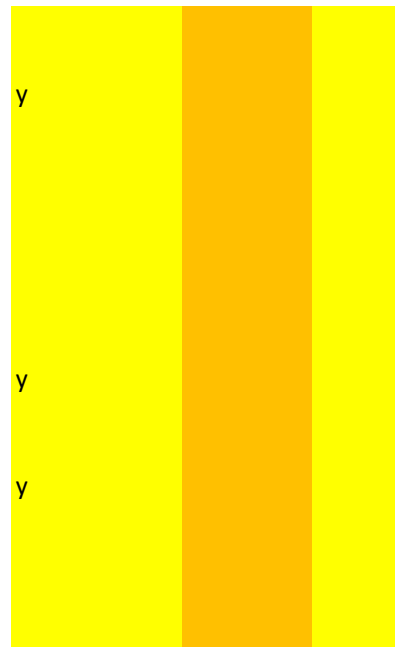
3

3 no

no

y

y



		OLD	GARDEN	
55d: Older leaves red or orange before yellowing or drying up				
55e: light green mottling				
55f: deformities of young leaves				
55g: leaves dropping off in the middle of the vine				
55h: other				
		0.7x1	2	0
		0.4-0.7 x 0.4	2	15-20
				5
		0.8 x 0.8	10	5
				0
	leaves with holes many grass hopper, no significant damage	0.8 x 0.8	1-2	20-30
		0.5 x 0.5	2-3	60
		0.8 x 0.8	3	
		0.8 x 0.8	3	
		1 x 0.6	3	2
		0.6 x 0.6	2	10
		0.5 x 0.5	2-3	
y				
y				
y				
	y			

		y		0.8 x 0.8	3	2
						10
				0.9 x 0.9	3	
y		y		0.75 x 0.75	3	20
y				1 x 1	3	2
y		y		0.75 x 0.75	3	5
y			y	1 x 1	2-3	2
		y	gall mite and leaf scab	0.6 x 0.6	2-3	40
y	y	y		1 x 1	3	30
				0.9 x 0.9	3	3
		y		0.6 x 0.6	2	24
		y		0.8 x 0.8	2	5
			y	0.8 x 0.8	2	5
				1 x 1	3	20
		y		2 x 1.5	2	2



0.3 x 0.3 3 20

0.9 x 1.2 14 5

0.3 x 3 2 0

4 x 4 15-20 15

3

102. What was the terrain like to walk to this garden?		103 Latitude	103 Longitude	103:altitude	108. How many years was the garden under fallow last time?	years	117. what do you think the sweetpotato yield will be in this garden?	128. Which part of sweet potato plants get attacked by pests?
sloping	6 00 39.1	145 18 06.1			too long ago		low	stem, leaves, tubers
sloping	6 17 7 S	145 25 3 E	1610		1	1	low	tuber
sloping	6° 17.0925'S	145° 25.3601'E			never		medium	The tubers
sloping					6	6	don't know	stem, leaves, roots, tubers
flat					40+	40	low	tuber
rugged	6 20 24.4	145 21 57.2	1910		40+	40	medium	tubers
sloping					3-4	3.5	low	stem, leaves, roots, tubers
flat							low	stem leaves, tubers
flat	6 01 15.7	145 18 29.7	1558		3	3	low	stem leaves
							low	stem, leaves, roots, tubers

sloping	6 5 23	145 6 6.9	1955	10+	10	low	stem, leaves, tubers
				never		medium	root
sloping				3	3	medium	tubers
sloping	6 5 45 s	145 1 12 e	1903	0.5	0.5	low	stem, leaves, roots, tubers
sloping				0		medium	stem, leaves, roots, tubers
sloping	6 5 38 S	14 1 14 E	1934	2	2	low	tubers
flat				3	3		stem, leaves, roots, tubers
steep				10	10	low	
sloping				1	1	low	stem, leaves, roots, tubers
sloping						low	roots, tubers
sloping				0.5	0.5	low	stem, leaves, tubers
sloping	6 11 4 S	144 56 52 E	1554			low	stem, leaves, tubers
sloping				20+	20	low	stem, leaves, roots, tubers
sloping	6 7 13.1 S	144 55 31.9 E	1726	4	4	high	stem, leaves, tubers
flat	5 46 36 S	144 14 58 E	1749	?		high	tubers

sloping				6	6 low	tubers
sloping				6 mo	0-Jan	stem, leaves
flat	5 49 32 S	144 18 57 E	1646	6 mo	0.5 medium	stem, leaves, tubers
flat				6-7 mo	0.59 low	stem, leaves, tubers
flat				3 mo	0.25 high 7.39714	stem, leaves, tubers

128. describe using local names the types of pests they have noticed, the incidence of attack, and severity	129. What time of the year or cropping cycle are the pests most active?	130. What action do you take to control or prevent these types of pests?
<p>SP weevil: attach when potato is ready, cricket: as soon as they plant SP weevil: Sep-Dec, Cricket; Dec-Aug</p>	<p>Pest are always there depends on age of crop that it then attacks SP weevil: Sep-Dec, Cricket : Dec-Aut</p>	<p>no action Ants to control the weevil.</p>
<p>sweetpotato weevil during dry season (Apr - Sep)</p>	<p>Weevil: during wet season leaf scab: 3-4 mo old, weevil: when tubers are formed and during dry season</p>	<p>None None</p>
<p>leaf scabs, weevil weevil: so serious, always exist, high yield loss, Cricket: less serious and small yield loss</p>	<p>weevil: all year around, Cricket: all year around</p>	<p>no control/prevention method</p>
<p>weevil: high yield loss, especially in dry season</p>	<p>weevil: dry season, May-June</p>	<p>no control/prevention method</p>
<p>weevil, scabs, cricket</p>	<p>weevil: dry season, scaves</p>	<p>no control/prevention method</p>
<p>weevil during dry periods from june to August, crickets in all year around</p>	<p>weevil: dry season, cricket: all year around</p>	<p>no control/prevention method</p>
<p>weevil: dry season, high yield loss weevil (senegaha): all year around, major yield loss,; rat: reduce crop yield</p>	<p>weevil: dry season, high yield loss weevil: active when crop is 4 month old</p>	<p>no action remove infested vine; for rat, cover the exposed vine</p>

weevil, dry season, major yield loss

pest is active during dry season

no control/prevention method

during dry season, but now even in wet season, weevil still attack

do nothing

weevils, yield loss

weevil, during dry season

do nothing

catapillar type, found in fresh; grasshopper, eat leaves

catapillar: 5-6 mo when SP become mature, grasshopper: all year around

harvest as soon as they find

affected from scab

August-october

nothing

weevil, during dry season, small yield loss

weevil, during dry season, from March to July

weevil, expose SP to heat

weevils, scab, gall mite weevil in dry period, many unknown species

scab, gall mite at yielding stage, weevil during dry season 2-6 mo when start producing tubers

no control

no control

weevil, major yield loss

weevil: dry season

put tefroschia and piper leaves on mound

scab, weevil grasshopper: eat leaves and tubers; giant snail (damdam): eat leaves; unknown pest

when SP is 2 mo old all cause major damage in 3-5 month old plants

do nothing

no action

weevil, cricket, yellow catapillar, all year around

all pests occur all year around all year around but close to harvest and 2-3 month are bad

no control/prevention method

scab, weevil

cro rotation

weevil, gall mites

both all year around, but weevil is worse in dry season

use fish-kill (tefroschia) in natural fertiliser mix, or pipe leaves

weevil, dry season, small yield decline;

weevil, all year around

no control method

weevils, all year around

all year around

make sure tubers are properly covered

scab

scab attacks when SP is 2-3 month old

no control

caterpillars: all year around though damage is insignificant, weevil: during dry season, major yield loss

unpredictable

no control

pests are present but don't know what they are

when crops are 2-5 month old

no control

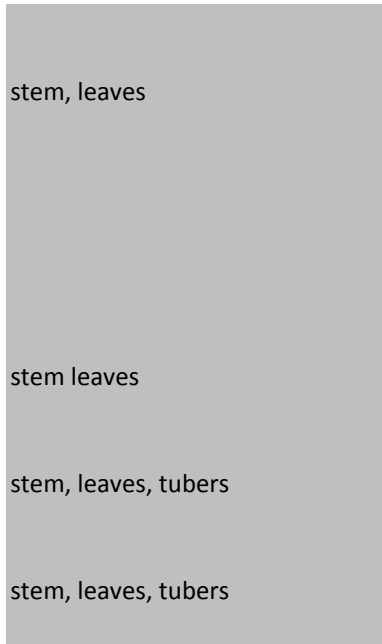
Oketepna: during dry season (probably weevil), major yield loss

dry season

no control

	131. Which part of sweet potato plants get attacked by plant diseases?	131: describe using local names the types of diseases they have noticed, the incidence of attack, and severity	132. What time of the year or cropping cycle are the diseases most active?
stem and leaves	same disease in new gardens affect the crop	occurs throughout the year	
roots	tubers become soft with no reasons	unseasonal	
stem, leaves	Galls: appeared throughout cropping cycle in some varieties. Not observed lately. Farmer believes this is due to non-selection of sustainable variety	Galls: mostly during wet season, Scab: mostly during wet season	
tubers	SP weevils are infested in the tubers. smell com out from the tubers when harvested	during dry season	
tubers	unexplained softing of tubers	no seasonal difference	
stem and leaves	no serious disease	occasionally	
stem and leaves, roots, tuber	yield drop,	dry seasons and maturity of the crops	
stem and leaves	scab and gall mite	all year around	
stem leaves	scab an gall mite, all yaear around, insignificant impact on yield	all year around	
leaves and tuber		gall mite, scab at 2-5 month time	

stem leaves	scab and gall mite, all year around, insignificant impact on yield	scab and gall mite occur during the growth of the crop
no		dry season -weevil damage prominent
stem and leaves	Galls:	all year around
stem and leaves	scab and gall mite	gall mite
stem and leaves	gall mite, all year around, insignificant yield loss	gall mite, all year around
stem, leaves, tubers	gall mite, scab	2-4 mo old of vines
stem, leaves	gall mite, scab; both become more frequent	during wet season
stem, leaves, roots, tubers	gall mite, scab; 2-5 month old plants	when plants are 2-5 month age
stem, leaves, roots	rust, scab, gall mite rotton tuber	all year around when SP is mature and wet season
stem and leaves	galls, scab	they become more frequently, especially in wet season
tubers	gall mite	all year around



stem, leaves

scab in leaves

all year around

stem leaves

gall mite: all year around,
planting materials are affected

all year around

stem, leaves, tubers

gall mite, scab, all year around,
major yield loss

all year around

stem, leaves, tubers

gall mite: worse when crop get
mature, yield loss

when crop is 2-5 month old

133. What action do you take to control or prevent these types of diseases?	134. From where do you obtain your planting material of sweetpotato?	135. Is the planting material you use certified disease tested or special in any way?	136. What is the typical length of time between sweet potato crops
selection of clean material	own garden	no	1 mo
no control /prevention method	from own garden	no	1 week
choose sweetpotato variety resistant /tolerant to disease	from own gardens	no	6 mo plant once a year, plant other crop, then plant sweetpotato again
do nothing	from the bush gardens	no	3 mo
no control /prevention method	from own gardens	no	varies between 1-3 mo
no control /prevention method	from own garden	no	1 mo
nil	from the old gardens	no	4-6 years
no control /prevention method	from own garden	no	1 mo
no control /prevention method	from own garden	no	1 mo
no control /prevention method	from old garden	no	4-5 weeks

no control /prevention method	from own garden	no	1-2 mo
no control /prevention method	from own gardens	no	2-3 mo
no control /prevention method	from own garden	no	2 mo
no control /prevention method	from old garden	no	6-7 yrs interval=unknown
	from old garden	no	6mo
no control /prevention method	from own gardens	no	1 mo
	from own garden	no	8-9 mo
no control /prevention method	from old garden	no	2 mo
do nothing	from own gardens	no	2mo
do nothing	from old garden	no	10-20 years
no control /prevention method	from own gardens	no	1 mo
no control /prevention method	from own gardens	no	3 mo
no control /prevention method	from own gardens	no	2mo
no control /prevention method	from own gardens	no	1 mo

do nothing	from own gardens	no		0
	from own gardens	no		4
no control /prevention method	from family members	no	1 mo	
no control /prevention method	old garden	no	10-20 years	
no control /prevention method	old garden	no	20-30 years	

137: Do you prepare the land for sweet potato planting in any special way to help prevent pest and disease problems

138: List your top three concerns about sweet potato pests or diseases; what problems do most want fixed, new research to help grow healthier crops?

146: Are there insect holes in tubers? location 1

146: location 2

147: Check the tubers and rate how many insect holes there are, location 1

no

weevil

no

weevil, unexpecting softening

no

Weevil, gall, scab

<3mm

none

obvious

no

scab, weevil, loss of yield

<3mm

<3mm

Many holes in tubers

no

weevil control, cricket control

no

weevil

none

none

none

no

weevil

<3 mm

no

weevil

none

none

none

no

weevil

no

weevil, scab/gall mite, rat

no

weevil, scab, gall mite

no

weevil

no

weevil, galls

none

less than 3 mm

none

no

pest control, new variety for pest resistant and quick growth

no

weevil, scab, gall mite

no

weevil, gall mite

no

soil fertility, weevil

less than 3mm

few just detectable

no

scab, gall mite, weevil

none

none

none

no

weevil

none

few just detectable

no

new technology, new variety

less than 3 mm

no

weevil, fungal disease

no

weevil, leaf scab, tuber rot

less than 3mm

larger

none

no

weevil

less than 3mm

less than 3 mm

few just detectable

yes, earthing up at the SP base during tuberization of the crop,

weevil

no

weevil

no

scab, weevil, soil fertility

no

weevil, gall mite

less than
3mm

less than
3mm

few just
detectable

no

new technique to resist pests
and diseases, new varieties

less than
3mm

no

gall mite, weevil, new variety
to resist pest and diseases

	147: location 2	148: Split open the base of the stem of the sweet potato plant and check for the presence of weevils or borers in the stem. location 1		148: location 2	155a: Healthy plants with large dark-green leaves and dense canopy	155b: all leaves smallish and light or olive green	155c: Oldest leaves yellowing or drying up	155d: Older leaves red or orange before yellowing or drying up
one	Tunnels visible	none		y	y	y		
many holes in tubers	larvae present	larvae presnt						
none	non	none		y				
just detectable		none		y	y			
none	non	none			y	y	y	

			y	y	
obvious, easily visible	non	larvae present	y	y	y
					y
			y	y	y
	larvae present				
none	non	tunnels visible			
f	larvae present	larvae present			
obvious, easily visible		tunnels visible		y	
many holes in tubers	larvae present	larvae present			y
few just detectable	none	none	y	y	y

few just
detectable

obvious, easily
visible

			y	
none	none		y	
	larvae present		y	y
		y		

155e: light green mottling

155f: deformities of young leaves

155g: leaves dropping off in the middle of the vine

155h: other

y

low scab infestation, holes in leaves

y

visible weevil & scab damages

y

small number of leaves have insect damage

y

call mite and scab



