# P.C.R ANALYSIS REPORT 2079/80



# Plant Protection Laboratory Gandaki Province, Nepal

The HLB diagnosis tests performed for achieving these results are based on protocol prepared by Plant Protection Laboratory, Gandaki Province, Nepal. These tests were performed at P.C.R (Molecular) Laboratory Section of the office based on randomly selected leaves among the samples leaves provided or collected.

*Note:* The results are applicable to the samples collected at the provided date.



Received Date: 04 / 07 / 2079 Received From: Syangja, Nepal.

Total Samples: 10

Method: The HLB diagnosis was performed by following the protocol prepared by Plant Protection Laboratory, Gandaki Province, Nepal.

Primer information:

Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC

### Tabulated Results:

S.N.	Lab code	Name	Location	Res	ulte
1.	F_S01	Sarala Sharma	arala Sharma Putalibazar -11 HLF		
2.	F_S02	Fadindra Aryal	Arjun Chaupari -1, Thapathok	HLB - ve	Positive
3.	F_S03	Durga Aryal	Arjun Chaupari -1, Thapathok	HLB +ve	Positive
4.	F_S04	Surendra Regmi	Arjun Chaupari -1	HLB +ve	Positive
5.	F_S05	Beni Madhab Aryal	Putalibazar -11, Bagalthok	HLB -ve	
6.	F_S06	Uma Kanta Adikari	Putalibazar -10, Lausidada	HLB +ve	Disi
7.	F_S07	Santosh Adhikari	Putalibazar -10, Lausidada	HLB +ve	Positive
8.	F_S08	Saraj Adhikari	Putalibazar -10, Khola Ghar	HLB -ve	Positive
9.	F_S09	Ram Bandhu Aryal	Putalibazar -10, Khola Ghar		D
10.	F_S10	Rudra Bahadur Rana	Putalibazar -10, Khola Ghar	HLB +ve	Positive Positive

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 10 samples, 7 were found HLB positive and 3 were found negative.

Sushil Dhungana Bio-technologist

Technical Assistant

Sushma Marahatta

ने. कार्यालय प्रमुख



Received Date: 02 / 08 / 2079 Received From: Kirtipur, Nepal.

Total Samples: 6

Method: The HLB diagnosis was performed by following the protocol prepared by Plant Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC

#### **Tabulated Results:**

S.N.	Lab code	Name	Location	Results
1.	O_SOA	8	Kirtipur	HLB -ve
2.	O_SOB	46	Kirtipur	HLB -ve
3.	O_SOC	50	Kirtipur	HLB -ve
4.	O_SOD	68	Kirtipur	HLB -ve
5.	O_SOE	78	Kirtipur	HLB +ve
6.	O SOF	80	Kirtipur	HLB -ve

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 6 samples, 1 was found HLB positive and 5 were found negative. Note: For verification, please go through the lab result of Molecular Biotechnology Laboratory o Nattional Academy of Science and Technology (NAST).

Sushil Dhungana Bio-technologist Technical Assistant Sushma Marahatta

नि. कार्यालय प्रमुख

# **PCR Analysis Report**

Received Date: 11,12 / 08 / 2079 Received From: Lamjung, Nepal.

**Total Samples: 16** 

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Name of the Primer Sequence (5:-3')	
Forward (Las606) GGAGAGGTGAGTGGAATTCCGA	
Reverse (LSS) ACCCAACATCTAGGTAAAAACC	

#### Results:

8.N.	Lab code	Name	Location	Resul	ts #
1.	FL_S01	Rabi B. K.	Beshisahar Mun 01	HLB - ve	Negative
2.	FL_S02	Indra Bahadur Pant	Beshisahar Mun 01	HLB - ve	Negative
3.	FL_S03	Chandra Koirala Basnet	Be. Mun. 11, Chiti	HLB + ve	Positive
4.	FL_S04	Anjan Pant	Be. Mun. 11, Chiti	HLB - ve	Negative
5.	FL_S05	Baburam Pandey	Be. Mun. 11, Chiti, Syaut	HLB + ve	Positive
6.	FL_S06	Ramesh Pant	Be. Mun. 11, Chiti, Syaut	HLB ve	Negative
7.	FL_S07	Ram Saran Bagarel	Be. Mun. 11, Chiti, Syaut	HLB - ve	Negative
8.	FL_S08	Balaram Bhandari	Be. Mun. 11, Chiti, Koldada	HLB - ve	Negative
9.	FL_S09	Krishna Bahadur Bhandari	Be. Mun. 11, Chiti, Koldada	HLB - ve	Negative
10.	FL_S10	Dhurbashali Panta	Be. Mun. 11, Chiti, Syaut	HLB + ve	Positive
11.	FL_S11	Bhagawati Panta	Be. Mun. 11, Chiti, Syaut	HLB - ve	Negative
12.	FL_S12	Rajendra Shrestha	Maryangdi 9, Lamagaun	HLB - ve	Negative
13.	FL_S13	Dharma Jang Gurung	Maryangdi 9, Lamagaun	HLB - ve	Negative
14.	FL_S14	Bhakta Adhikari	Suandarbazar Mun 01	HLB - ve	Negative
15.	FL_S15	Goberdan Gauli	Suandarbazar Mun 01	HLB - ve	Negative
16.	FL_S16	Tara Bhattarai Gauli	Suandarbazar Mun 01	HLB - ve	Negative

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 16 samples, 3 were found HLB positive and 13 were found negative.

# **PCR Analysis Report**

Received Date: 29 /08 / 2079 Received From: Syangja, Nepal.

Total Samples: 10

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Name of the Primer Sequence (5/3").
Forward (Lastic) GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS) ACCCAACATCTAGGTAAAAACC

#### Results:

s.N.	Lab code	Name	Location		Resul	ts .
1.	FS_S01	Hari Prasad Poudel	Waling-2, Gaundada	HLB	+ ve	Positive
2.	FS_S02	Shovakanta Poudel	Waling-2, Gaundada	HLB	ve	Negative
3.	FS_S03	Dambara Devi Poudel	Waling-2, Gaundada	HLB	+ ve	Positive
4.	FS_S04	Khemraj Gurung 'A'	Waling-4, Eladi Kahare	HLB	+ ve	Positive
5.	FS_S05	Khemraj Gurung 'B'	Waling-4, Eladi Kahare	HLB	- ve	Negative
6.	FS S06	Durga Gurung	Waling-4, Eladî Kahare	HLB	- ve	Negative
7.	FS_S07	Dal Bahadur Gurung	Waling-4, Eladi Kahare	HLB	- ve	Negative
8.	FS_S08	Hari Khanal	Waling-4, Syangja	HLB	+ ve	Positive
9.	FS_S09	Shiva Chapagain	Waling-4, Dhunge Fedi	HLB	- ve	Negative
10.	FS_S10	Dilliram Chapagain	Waling-4, Dhunge Fedi	HLB	+ ve	Positive

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 10 samples, 5 were found HLB positive and 5 were found negative.



Received Date: 9 & 10 / 2079

Received From: Agriculture Knowledge Center Kaski, Nepal.

**Total Samples: 16** 

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC

Report Approved by: Mrs. Sushma Marahatta

Report Analyzed by: Mr. Sushil Dhungana (Biotechnologist)

#### **Tabulated Results:**

S.N.	Lab code	Name			Results	
1	OAK_S01	SAMPLE 01	HLB	+	ve	Positive
2	OAK_S02	SAMPLE 02	HLB	+	ve	Positive
3	OAK_S03	SAMPLE 03	HLB	-	ve	Negative
4	OAK_S04	SAMPLE 04	HLB	-	ve	Negative
5	OAK_S05	SAMPLE 05	HLB		ve	Negative
6	OAK_S06	SAMPLE 06	HLB		ve	Negative
7	OAK_S07	SAMPLE 07	HLB	-	ve	Negative
8	OAK_S08	SAMPLE 08	HLB	-	ve	Negative
9	OAK_S09	SAMPLE 09	HLB	-	ve	Negative
10	OAK_S10	SAMPLE 10	HLB	-	ve	Negative
11	OAK_S11	SAMPLE 11	HLB	-	ve	Negative
12	OAK_S12	SAMPLE 12	HLB	+	ve	Positive
13	OAK_S13	SAMPLE 13	HLB	m <b>+</b>	ve	Positive
14	OAK_S14	SAMPLE 14	HLB	+	ve	Positive
15	OAK_S15	SAMPLE 15	HLB	+	ve	Positive
16	OAK_S16	SAMPLE 16	HLB	+	ve	Positive

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 16 samples, 7 were found HLB positive and 9 were found negative.

Sushil Dhungana Bio-technologist Technical Assistant

Sushma Marahatta



Date: 25 / 12 / 2079

Received Date: 19/09/2079 Received From: Myagdi, Nepal.

Total Samples: 10

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC

Report Approved by: Mrs. Sushma Marahatta

Report Analyzed by: Mr. Sushil Dhungana (Biotechnologist)

#### **Tabulated Results:**

SN	Lab code	Name	Location .	Results		
1	FM_S01	Prem Bahadur Paija	Annapurna -7, Dosalle	HLB - ve	Negative	
2	FM_S02	Bikash Shrestha	Annapurna -7, Dosalle	HLB + ve	Positive	
3	FM_S03	Premlal Magar	Annapurna -7, Dosalle	HLB - ve	Negative	
4	FM_S04	Chitra Bahadur Garbuja	Annapurna -7, Dosalle	HLB - ve	Negative	
5	FM_S05	Ram Chandra Purja	Annapurna -7, Dosalle	HLB - ve	Negative	
6	FM_S06	Ik Bahadur Pun	Annapurna -7, Dosalle	HLB - ve	Negative	
7	FM_S07	Dil Maya Paija	Annapurna -7, Dosalle	HLB - ve	Negative	
8	FM_S08	Nil Prasad Pun	Annapurna -7, Dosalle	HLB + ve	Positive	
9	FM_S09	Laxman Ranjita	Annapurna -7, Dosalle	HLB + ve	Positive	
10	FM_S10	Hira Bahadur Garbuja	Annapurna -7, Dosalle	HLB - ve	Negative	

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 10 samples, 3 were found HLB positive and 7 were found negative.

Sushii Dhungana Bio-technologist Technical Assistant Sushma Marahatta

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Date: 12 / 01 / 2080

Received Date: 24/10/2079

Received From: Rishing-3, Tanahun, Nepal.

Total Samples: 10

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

#### Primer information:

Primer informa <u>tion:</u>	
Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAGTGGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC

Report Approved by: Mrs. Sushma Marahatta

Report Analyzed by: Mr. Sushil Dhungana (Biotechnologist)

#### **Tabulated Results:**

e ni	Lab code	Name	Location	Contact	Results		
S.N.	OTF S01	Hum Bahadur Rana	Archaldi	9826187862	HLB	- ve	Negative
	OTF S02	Suk Bahadur Rana	Archaldi	9826187862	HLB	- ve	Negative
2	OTF S03	Sur Bahadur Rana	Archaldi	9856036595	HLB	- ve	Negative
3	OTF_S04	Om Bahadur Malla	Rijaldi	9808170304	HLB	+ ve	Positive
5	OTF S05	Jola Bahadur Rana	Rijaldi	9814974859	HLB	+ ve	Positive
6	OTF S06	Bel Bahadur Ranabhat	Mauribash	9846373589	HLB	- ve	Negative
7	OTF S07	Tul Bahadur Ranabhat	Mauribash	9846373589	HLB	- <u>ve</u>	Negative
8	OTF S08	Til Bahadur Thapa	Dubung	9745282280	HLB	- <u>ve</u>	Negative
9	OTF S09	Hima Bahadur Thapa	Dubung	9846373589	HLB	- <u>ve</u>	<del> </del>
10	OTO S10		Debghat-3	9816665138	HLB	+ ve	Positive

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 10 samples, 3 were found HLB positive and 7 were found negative.



Date: 12 / 01 / 2080

Received Date: 09/2079

Received From: Lumle, Kaski, Nepal.

**Total Samples: 10** 

Method: The HLB diagnosis was performed by following the protocol prepared by Plant

Protection Laboratory, Gandaki Province, Nepal.

## Primer information:

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Name of the Primer	Sequence (5'-3')
Forward (Las606)	GGAGAGGTGAATTCCGA
Reverse (LSS)	ACCCAACATCTAGGTAAAAACC
	THOUTHAMACC

Report Approved by: Mrs. Sushma Marahatta

Report Analyzed by: Mr. Sushil Dhungana (Biotechnologist)

# **Tabulated Results:**

.N.	Lab code	Name			Result	
1	OLU_S01	SAMPLE M1	HLB		ve	
2	OLU_S02	SAMPLE M2	HLB			Negative
3	OLU_S03	SAMPLE B1	HLB		ve	Negative
4	OLU_S04	SAMPLE B2	HLB		ve	Negative
5	OLU_S05	SAMPLE P1	HLB	<del>-</del>	ve	Negative
6	OLU_S06	SAMPLE P2	HLB	<del></del> -	ve	Positive
7	OLU_S07	SAMPLE L1	HLB	<del></del>	ve	Positive
<u> </u>	OLU_S08	SAMPLE L2	HLB	<del></del> -	ve	Positive
}	OLU_S09	SAMPLE G1	HLB	_ <u>_</u>	ve	Positive
0	OLU_S10	SAMPLE G2	HLB	<del>-</del>	ve ve	Negative Negative

Remarks: The results generated are based on PCR analysis of randomly selected 3 to 4 leaves from each sample, at the provided date. Among 10 samples, 4 were found HLB positive and 6 were found negative.