A Report on:

31st National Summer Crops Workshop

2-3 July 2023

Directorate of Agriculture Research, Lumle, Kaski

Government of Nepal

Nepal Agricultural Research Council

Crops and Horticulture Research Directorate

Reported by:

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Contents

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1. Background

The 31st National Summer Crops Workshop was successfully organized by the Crops and Horticulture Research Directorate of the Nepal Agricultural Research Council (NARC). The workshop took place at the Directorate of Agriculture Research (DOAR), Gandaki Province, Lumle on July 2-3, 2023. It is worth noting that due to an unfortunate road blockage at Narayangarh-Mugling road, a group of participants, particularly from the eastern region, were unable to attend the workshop at Lumle. For accommodating these participants, a contingency program schedule was promptly prepared to organize parallel sessions at the National Maize Research Program (NMRP), Rampur (refer to Annex 1 for details).

The workshop encompassed a wide range of activities, including combined and parallel sessions for paper presentations, poster presentations, group work, and the workshop opening and closing ceremonies (see Annex 1 for the detailed schedule). The opening session of the workshop was presided over by Dr. Dhruba Raj Bhattarai, the Executive Director of NARC. We were honored to have the Secretary of the Ministry of Agriculture and Land Management, Gandaki Province, Mr. Sahadev Prasad Humagai, as the esteemed chief guest of the session. Mr. Basu Dev Regmi, the Director General of the Provincial Department of Agriculture, graced us as a distinguished guest. During the opening session, two coordinators' reports and 10 disciplinary reports were presented at Lumle, while five commodity coordinators' reports were presented at Rampur.

2. Technical session details

The opening session was followed by parallel paper and poster presentation sessions at both locations divided into various groups based on disciplines. In the sessions, a total of 111 papers from various disciplines were presented altogether, consisting of 99 papers and 10 posters. The papers included 94 research papers, seven commodity coordinators' reports and ten disciplinary reports.

Table 1: Details of papers presented at the workshop

Discipline	Lumle			Rampur			Total		
	Paper	Poster	Total	Paper	Poster	Total	Paper	Poster	Total
Coordinator's report	2		**2**	5		**5**	7	0	**7**
Disciplinary report	10		**10**				10	0	**10**
Agronomy	7		**7**	3		**3**	10	0	**10**
Entomology	2	2	**4**	4	1	**5**	6	3	**9**
Food Science	2		**2**				2	0	**2**
Plant Breeding	25	2	**27**	17		**17**	42	2	**44**
Plant Pathology	6	3	**9**	4		**4**	10	3	**13**
Socioeconomics	3		**3**				3	0	**3**
Soil Science	9	4	**13**				9	4	**13**
Grand Total	66	11	**77**	33	1	**34**	99	12	**111**

Note: The list of these papers is presented in Annex 2

The workshop fostered valuable discussions and interactions among participants, facilitating the exchange of ideas and experiences. The paper presentation sessions at both NMRP and Rampur allowed researchers to present their findings and engage in fruitful discussions with their peers and experts in the field. The poster presentation session provided an opportunity for participants to visually showcase their research projects and receive feedback from the audience.

3. Groupwork

In addition to the academic sessions, the workshop included group work activities, where participants were divided into four groups based on their interests and expertise (see Annex 1). The groups were expected to

1. Consolidate major findings presented in the workshop in respective disciplines
2. Identify the technologies/findings to be communicated to farmers through extension system
3. Identify the varieties that have potentiality for registration/ release
4. Identify gaps and suggest way-forward for research in respective disciplines

In what follows, we present the outcomes of groupwork.

3.1. Genotypes with potential for release/registration

Table 2 displays the list of promising genotypes identified based on the papers presented by the researchers belonging to the plant breeding and genetics group. They have identified 40 rice genotypes that demonstrate significant potential for farmers' use. Similarly, among other crops, seven maize genotypes, six sugarcane genotypes, four groundnut genotypes, two sesame genotypes, one niger genotype, one sunflower genotype, eight soybean genotypes, two horsegram genotypes, one pigeonpea genotype, seven finger millet genotypes, one proso millet genotype, and two jute genotypes have been recognized as having cultivation potential for farmers. The researchers should be encouraged to devote further efforts in formalizing the release or registration process for these varieties. This will ensure that the identified genotypes with promising potential undergo proper evaluation and documentation, leading to their official recognition and availability for farmers.

Table 2: Promising genotypes of various summer crops

Commodity	Promising genotypes	Remarks
Rice	NR 2170-1-1-1-4-1-1-1	Fine grain, suitable for irrigated condition
	NR 2264-4-1-6-1-5	Super fine grain, suitable for summer season
	NR 2184-187-6-2-1-2	Fine grain, suitable for Irrigated condition
	BRRI Dhan72	Zinc-rich, low Glycemic, suitable for summer and spring season
	IR 17L 1769	Suitable for spring season
	Sarbati	Extra-long slender grain
	HH 1-10	Hybrid for summer and spring season
	NR 11105-B-B-27 NR 10676-B-5-3 NR 11115-B-B-31-3 NR 11271-B-B-6 NR 11321-B-B-7-3 NR 11301-B-B-1	Suitable for summer season in irrigated condition of mid-hills
	NR 11121-B-B-17-5-3 IR13K190 NR 11345-B-B-15-1-2 NR 11345-B-B-30-3-1 NR 11366-B-B-26-3-2 NR11366-B-B-26-2-3	Suitable for summer season in irrigated condition of high-hills
	IR15D1023 IR15D1055 IR15D1080 IR15D1028, IR 108541:12-27-1-3-B-B IR15D 1047 IR15D1048 IR15F1384	Submergence tolerant
	NR 2175-66-2-3-1-1 TP 26 777 NR 2187-6-2-2-1-1 NR 2184-20-2-1-7-1	Suitable for summer season in irrigated condition
	IR 17L 1341 IR 17L 1451 IR 103575-20-4-2-B	Drought tolerant
	NR2157-122-1-2-1-1-1 IR14L363 TP30535 TP30529	Suitable for rainfed lowland in spring, early maturity

	NR 2191-6-2-6-2-1	Fine and aromatic
	Jumli marshi-20	Cold tolerant, blast resistant, suitable for high hills
Maize	CAH1511	Waterlogging tolerant, single cross FS, Hybrid
	CAH1817 CAH193	Drought tolerant, high yielding single cross FS, Hybrid
	KSYNF10 TLBRS07F16	Op Varieties
	Pool-16 Across-99402	Early Season Promising
Sugarcane	CO 05011	Wing shaped bud, Waxiness, Brown spot with purple color root band, red rot resistance, moderately resistant to top borer
	Co 08279	Heavy waxiness, purple root band color
	Co 98014	Tolerate waterlogged condition, moderately resistant to red rot, smut, and borer and high sugar recovery
	CoS 13231	High sugar recovery, high cane and ratoon production, high tillering, moderately resistant to red rot, smut and borer, high yielding
	COS 8276	Round shaped bud, heavy waxiness, green root band color, yellowish stem
	Co 08452	Oval shaped bud, yellowish green color stem, heavy waxiness, yellow root band
Groundnut	ICGV 07240 ICGV 95358	Early maturity
	ICGV 98184 ICGV 07222	Medium duration
Sesame	EC 376383W Kanchanpur-3	High yielding
Niger	ICN Lumle 3000 G30	High yielding
Sunflower	Modern Dwarf	Dwarf, high yielding

Soybean	TGX1989-19f SB0095 TGx1890-106fn CO2831 CO 2831	Suitable for mid-hills
	G1873 TGX-1445-ID SB0122	Suitable for hills and terai
Horse gram	CO3672 CO3825	High yielding
Pigeon pea	ACC#9332	High yielding
Finger millet	Landraces: NGRC04849 (Rukum) NGRC01497 (Jajarkot)	Higher grain and straw yield
	Landrace: NGRC01483 (Okhaldhunga)	Early maturing
	NGRC03484 NGRC04769 NGRC04804 NGRC04852	Resistant to neck & finger blast
Proso millet	Dudhe chino	Suitable for Jumla condition
Jute	NJ 7010 JRO 204	Promising genotypes of Tossa

3.2. Crop varieties that need to be promoted

The plant breeding and genetics group also emphasized the importance of promoting recently released/registered varieties of various summer crops. Despite possessing desirable traits valued by farmers, these varieties have not been widely adopted. Table 3 outlines the collection of such recently released varieties that exhibit several characteristics preferred by farmers. These varieties have undergone rigorous evaluation and possess qualities that align with the needs and preferences of farmers, making them potential candidates for widespread cultivation.

Table 3: Recently released/registered varieties of various summer crops

Commodity	Varieties	Remarks
Rice	Khumal Basmati-16, Khumal-14, Khumal 12	For Mid hills
	Ghaiya-3,	For upland environment
	Hardinath-4,	For Rainfed environment
	Hardinath-6	For Normal season (Fine)
	Gangasagar-1 and 2	Submergence tolerance
	Hardinath 5	Nitrogen efficiency varieties for normal season
Maize	Rampur hybrid 12	Heat stress tolerant, FAW and stem borer tolerant and dual purpose
	Rampur Hybrid 14 Rampur Hybrid 16	Adaptability Three in One - 3F High grit to flour ratio Resistant against ear rot & weevil penetration
	Manakamana-7 Manakamana-9	For Mid hills GLS resistant
	Rampur-4	Terai and Inner terai
Sugarcane	Jitpur-8 Jitpur-9	Terai region of irrigated and partially irrigated condition
Oilseed	Nawalpur Badam-1 Sambriddi	Resistant to leaf spot, can be grown upto 1500 masl (2.8 t/ha pod yield) Early high yielding (3.1 t/ha (pod yield))
	Modern Dwarf	First sunflower proposed genotypes (1.5 t/ha)
Jute	Itahari-4	New tossa variety for terai and inner terai

3.3. Other suggestions related to plant breeding and genetics

- Incorporate molecular and modern technologies in research endeavors to enhance breeding efforts and accelerate genetic advancements.
- Implement incentives for researchers to motivate and reward their contributions to the field of plant breeding and genetics.
- Ensure proper acknowledgment and crediting of individuals involved in research work, recognizing their valuable contributions.

- Advocate for substantial investments in research to support the development of improved crop varieties and facilitate scientific breakthroughs.
- Enforce breeder's rights and establish fair benefit-sharing mechanisms to encourage the development of high-yielding varieties and incentivize breeders.
- Prioritize the achievement and efficient delivery of genetic gain through the modernization of breeding techniques and processes.
- Foster the development of a critical mass of qualified manpower in the field of plant breeding and genetics to drive innovation and progress.
- Promote capacity building initiatives to enhance the skills and expertise of researchers, empowering them to tackle the challenges of plant breeding and genetics effectively.

3.4. Technologies at the end of pipeline

3.4.1. Agronomy

- **Pretilachlor as a pre-emergence herbicide:** The application of pretilachlor as a pre-emergence herbicide at a rate of 0.5 kg a.i/ha as a spray is recommended for the mid hill ecology of Nepal in transplanted rice. This herbicide is effective in controlling weeds that emerge within three days after treatment (DAT).
- **Pendimethaline + Nominee gold or Nominee gold with hand weeding:** The combination of Pendimethaline and Nominee gold herbicides, along with one round of hand weeding, is beneficial for controlling both broadleaf and narrowleaf weeds and increasing the yield in direct-seeded rice.
- **Recommended rice varieties for direct-seeded rice in the eastern Terai:** Tarahara cross 102, Hardinath 6, and Sukhkha dhan 3 are found to be the best rice varieties for direct-seeded rice in the eastern Terai region of Nepal.

- **Green manuring and crop residue incorporation:** Green manuring has been found to be superior to crop residue incorporation. However, when green manuring is combined with crop residue incorporation and supplemented with 25% nitrogen, it has shown higher rice yields.
- **Optimum sowing dates for different rice varieties:** The last week of March is the recommended sowing time for the varieties Pratigya, Kalyan, and yellow mung. On the other hand, the early second week of April is considered the optimum sowing time for SML-668 and Pant Mung-5.
- **Maize storage:** For maize storage, using a locally fabricated seed storage structure with a double stratum made of 400-gauge plastic bags is efficient and cost-effective. This method helps in preserving the quality of maize seeds.
- **Desiccant for maize seed storage:** Using roasted wheat as a desiccant to maize seed in a ratio of 1:6 has been found to be an economical option for smallholder farmers. This suggests that the use of roasted wheat in this particular ratio helps in drying and preserving maize seeds effectively, providing a cost-effective solution for smallholder farmers.
- **Rice sowing dates for higher yield:** In the Hardinath condition, rice genotypes NR2184 and NR2191 resulted in higher yields when sown on June 12 and June 22. These specific sowing dates seem to be optimal for these rice genotypes in that particular condition.
- **Maize seed coating with zinc:** Coating full-season maize seeds with 4 g of zinc per kilogram of seed has shown to increase grain yield in the summer season. It is important to note that this information is based on single-year data and further studies may be required to establish the consistency of these results.

3.4.2. Soil management

- **Neem-oil Coated Urea (NCU) for rice:** Supplying nitrogen at a rate of 100 kg/ha through Neem-oil Coated Urea (NCU) significantly improves grain

yield, yield components, and nitrogen use efficiency of rice. This practice has been found effective in the Lumle region and similar agroecologies.

- **Chemical fertilizer and FYM combination for rice:** The combined application of chemical fertilizer and farmyard manure (FYM) has shown higher rice yields and improved soil properties in long-term soil fertility experiments.
- **Sunflower fertilizer requirements:** The highest sunflower yield was obtained from the application of a fertilizer ratio of 60:40:20 N:P2O5:K2O kg/ha, along with 10 t/ha of FYM.
- **Fertilizer dose for bitter buckwheat and finger millet:** A fertilizer dose of 60:30:30 N:P2O5:K2O kg/ha, combined with 5 t/ha of FYM, has been found appropriate for both bitter buckwheat and finger millet in monocropping systems in the mid-hills region.
- **Cowpea fertilizer recommendations:** In Nepalgunj and similar domains, the recommended fertilizer dose for cowpea includes 20:40:30 N:P2O5:K2O kg/ha, along with 2 kg/ha of Boron and a certain amount (not specified) of Zinc. This combination has shown increased cowpea yields.

3.4.3. Plant Protection

- **FAW Management in Maize Using Balanced Fertilizer and FYM:** Balanced fertilizer application with organic source (FYM) reduces infestation rate, leaf damage, and damage score of Fall Armyworm (FAW) in maize. Insecticides such as Spinosad, Spinetoram, and Chlorantraniliprole can effectively control FAW and serve as important tools in Integrated Pest Management (IPM) for *S. frugiperda* in maize.
- **Maize genotypes/varieties tolerant to FAW:** The following maize genotypes/varieties have shown tolerance to FAW in the context of NMRP (specific region/context not defined): Arun-3, SO1STYQ, SPPTLYQ-A, CORRALJOS002SIYQ, Mankamana-3, Rampur-4, R-POP-2, KSYNF10, S0128, RML-95/96, Rampur hybrid-10, CAH 1715, RML 145/RL 298.

- **Sowing time of maize hybrid for aphid resistance:** The mid-December sown maize hybrid (specific hybrid not mentioned) was found to be the least affected by aphids in NMRP. This suggests that sowing maize hybrids in mid-December may provide some resistance against aphids.
- **BPH Management in Rice:** Nitenpyram, emamectin benzoate, fipronil, and thiamethoxam can be employed for managing Brown Planthopper (BPH) in rice.
- **BPH resistant rice genotypes/varieties:** Sabitri, IR16L1421, TP30583, HHZ225-DT9-Y1-Y2, NR2157-122-2-1-1-1, SVIN141, SVIN082, NR2187-2-1-1-2-2, NR2187-2-1-4-1-1, SVIN132.
- **Rice varieties resistant to Blast disease**: Ghaiya-1, Hardinath-3, IR05N341, NR2187-25-2-4-1, SVIN054, SVIN074, SVIN098, SVIN106, SVIN136, SVIN326.
- **Rice varieties resistant to Bacterial Leaf Blight (BLB):** HHZ25-DT9-Y1-1 (Pipeline), TP 26777 (PL), IR 16 L 1831 (PL), IR16F1148 (PL), NR 2191-6-2-4-5-1 (PL), GSR 310 (PL) (PL: Promising line).
- **Rice landraces with blast resistance:** NGRC 01960, NGRC 02092, NGRC 01954, NGRC 01955, NGRC 01926, NGRC 01942, NGRC 01948, NGRC03217, NGRC02819, and NGRC06643 are rice landraces that have shown blast resistance in Jiri, Dolakha at an altitude of 1950 masl. These landraces can serve as potential donor sources for developing blast-resistant rice varieties.
- **Finger millet genotypes resistant to blast disease:** ACC#6408, Coll#DR-6, ACC#2707, ACC#6375, and ACC#2811 have shown resistance to leaf, neck, and finger blast diseases in finger millet. These genotypes can serve as valuable resources for developing blast-resistant finger millet varieties.
- **Groundnut genotypes with resistance to leaf spot and high yield potential:** Early maturing genotypes ICGV 05155 and ICGV 07214, as well as medium maturity genotypes ICGV 95412, ICGV 07220, and ICGV 07247, have exhibited moderate resistance to leaf spot disease and have shown high yield potential. These genotypes can be considered for

groundnut breeding programs aiming to develop disease-resistant and high-yielding varieties.

3.5. Other recommendations related to Agronomy, Soil Science and Plant Protection

- **Hybrid maize seed production research:** Research is recommended for various aspects of hybrid maize seed production, including synchronization of flowering, nicking techniques, determination of the optimal male-female ratio, and induced pollination methods. These studies can contribute to improving seed production efficiency and quality in hybrid maize.
- **Economic analysis for crop management technologies:** Conduct economic analyses for every crop management technology. This analysis will help assess the economic feasibility and profitability of implementing different agricultural practices and technologies, providing valuable insights for farmers and decision-makers.
- **Molecular study for identifying potential genes against major crop pests:** Conduct molecular studies to explore the potential genes associated with resistance or tolerance to major crop pests. By identifying these genes, researchers can develop pest-resistant crop varieties through breeding programs or genetic engineering approaches.
- **Artificial inoculation for screening against major crop pests:** To evaluate the effectiveness of pest control methods and assess the resistance of crop varieties against major pests, it is recommended to conduct artificial inoculation experiments under controlled conditions such as greenhouses. This will facilitate systematic screening activities and provide valuable data for pest management strategies.
- **Molecular study/genotyping for identifying potential genes against major crop diseases:** Molecular studies and genotyping should be conducted to identify potential genes associated with resistance or tolerance to major crop diseases. These findings can aid in the

development of disease-resistant crop varieties through breeding programs or genetic engineering techniques.

- **Molecular pathotype study and artificial inoculation for disease screening:** To understand the variability of crop diseases and assess the resistance of crop varieties, it is recommended to conduct molecular pathotype studies. Additionally, artificial inoculation experiments can be performed in controlled environments, such as greenhouses or sick plots, to screen crop varieties for disease resistance.
- Incorporate rice genotypes resistant and moderately resistant to leaf blast, GLS (Gray Leaf Spot), NLB (Northern Leaf Blight) in rice breeding programs.
- Include maize genotypes resistant and moderately resistant to GLS and NLB in maize breeding programs.
- Utilize rice genotypes resistant and moderately resistant to BLB (Bacterial Leaf Blight) in rice breeding programs.
- Conduct multi-location experiments for pest scoring in order to generate uniform data in commodity research programs.
- Organize disciplinary working group meetings to foster collaboration and collective efforts in plant protection research.
- Assess pathotype/biotype diversity of specific pathogens/insects across the country to determine the exact reasons for high variation between experimental sites for pest scores.
- Conduct varietal screening for major diseases/insects through artificial inoculation in controlled environments.

3.6. Major outputs and recommendations of Food research

- Different rice varieties exhibited variations in milling, physical, nutritional, and cooking quality
- Germinating duration influenced polyphenol flavonoid, tannin, diastatic power, alpha-amylase, and reducing sugar in millet and sorghum.

- Kaguno red had the highest phytochemical concentrations across all germination times.
- Germination up to day 5 was identified as the optimal duration. Therefore, a germination period of 5 days is recommended for improved biochemical properties.
- Optimize germination time and temperature for specific applications of NUS (Non-Underutilized Substances) crops, such as brewing, bakery, and nutraceuticals.
- Establish a correlation between sensory evaluation, textural evaluation, and cooking quality of different rice varieties.

3.7. Major outputs and recommendation of Socioeconomic research

- Adoption of maize varieties: Local (27%), Improved (41%), Hybrid (32%)
- The yield of maize was ranked as follows: Hybrid > Improved = Local.
- Improved variety adopters achieved a yield gain of 360 to 375 kg per ha more than local variety adopters, while hybrid variety adopters achieved a yield gain of 2,239 to 2,315 kg per ha more than improved variety adopters.
- About 46% of maize was utilized for own livestock feed, followed by sold to feed (39%), home consumption (11%), and beverage making (3%).
- The policy should focus on increasing SRR (Seed Replacement Rate) of improved maize varieties and promote the release and adoption of Nepalese hybrid maize varieties.
- Delivery of technical information through SMS is not effective in increasing farmer's income. However, SMS is effective in increasing farmers' awareness of the intended message. Therefore, focus should be given to enhancing SMS service efficiency for effective delivery of information. Evaluating the alternative methods for message delivery beyond SMS is also necessary to improve efficiency.
- Soybean production has increased by 2.49% between 2000 and 2021, but with slow growth in the cultivated area by 0.59%.

- Bagmati Province has the highest production and area for soybean, while Karnali Province exhibits the highest productivity.
- More than 20 diverse ethno-dietary recipes based on soybeans have been identified which are popular among several ethnic groups.
- Soybean productivity of Nepal is lower compared to the world's average.
- There is potential for specialization in soybean production in 30 districts.
- Expanding soybean cultivation area in Madesh Province can address protein deficiency, prioritizing greater productivity.
- Documentation of the nutritional profile of soybean-based ethno-dietary recipes is necessary for potential industrial applications.

4. Conclusion

The 31st National Summer Crops Workshop, organized by the Crops and Horticulture Research Directorate of the Nepal Agricultural Research Council (NARC), proved to be a successful platform for knowledge sharing and collaboration among researchers in the field of agriculture. Despite the unfortunate road blockage that prevented some participants from attending, a contingency program was promptly arranged to ensure their inclusion. The workshop featured a comprehensive agenda, including paper and poster presentations, group work activities, and opening and closing ceremonies.

The workshop yielded valuable recommendations in various disciplines. In plant breeding and genetics, the identification of promising genotypes for release or registration in rice, maize, sugarcane, groundnut, sesame, niger, sunflower, soybean, horsegram, pigeonpea, finger millet, proso millet, and jute was highlighted. Additionally, the importance of promoting recently released varieties in summer crops was emphasized.

Groupwork sessions further enriched the workshop, resulting in recommendations such as the incorporation of molecular and modern

technologies in breeding efforts, provision of incentives for researchers, acknowledgment of contributions, increased investments in research, enforcement of breeder's rights, and capacity building initiatives.

The technical sessions provided a platform for researchers to present their findings, fostering discussions and interactions among participants. The workshop facilitated the dissemination of important technological recommendations for agronomy, soil management, and plant protection. These recommendations included the optimal use of herbicides, recommended sowing dates for rice varieties, effective maize storage methods, fertilizer combinations for various crops, and management strategies for pests such as Fall Armyworm.

The workshop played a crucial role in advancing agricultural research and fostering collaboration among stakeholders. The recommendations put forth during the workshop hold the potential to enhance crop productivity, improve farming practices, and contribute to the sustainable development of Nepal's agricultural sector.

Lastly, the organizers would like to express their gratitude to all the participants, presenters, and dignitaries who contributed to the success of the workshop. Their active participation and valuable contributions played a vital role in making this event a memorable and fruitful experience. The insights gained from this workshop will undoubtedly contribute to the advancement of summer crop research and the development of sustainable agricultural practices in Nepal.

Annex 1: Program schedule details

नेपाल सरकार

नेपाल कृषि अनुसन्धान परिषद्

३१ औं राष्ट्रिय बर्षेबाली कार्यशाला

२०८० असार १७ – १८

स्थान: कृषि अनुसन्धान निर्देशनालय, लुम्ले

पहिलो दिन: १७ असार २०८०

बिहानको खाजा: ०७:०० **दर्ता: ०७:३०** **विश्वम्भर मानसिंह बस्नेत**

उद्घाटन सत्र (Session 1)

उद्घोषक: श्री रमेश आचार्य **प्रतिवेदक: किशोर भण्डारी**

समय	कार्यक्रम	विवरण
८:००	आसन ग्रहण	अध्यक्ष: कार्यकारी निर्देशक; प्रमुख अतिथि: सचिव (प्रादेशिक कृषि मन्त्रालय)
८:०५	राष्ट्रिय गान	
८:१०	उद्घाटन	प्रमुख अतिथि
८:१५	स्वागत तथा कार्यक्रमको जानकारी	निर्देशक, बाली तथा बागबानी अनुसन्धान
८:२०	संयोजकज्यूहरुको प्रस्तुति	
१०:५	छलफल तथा चिया	
१०:२०	विषयगत प्रतिवेदन प्रस्तुति	
१२:३०	छलफल	
१२:४०	उद्घाटन सत्र समापन	
१:००	खाना र पोस्टर प्रस्तुति	

Paper Presentation Parallel Sessions (at Lumle)

Group A: Plant Breeding & Genetics

Day 1: 17 Asar 2080

Session 2: Time: 2:00 – 5:40

Chair: Dr. Krishna Kumar Mishra Reporter: Ramesh Acharya

Day 2: 18 Asar 2080

Session 3: Time: 8:00 – 11:00

Chair: Dr. Krishna Hari Ghimire Reporter: Pradip Thapa

11:00 – 12 Lunch & Poster Presentation

Session 4: Time: 12:00 – 3:20

Chair: Dr. Rajendra Darai Reporter: Dr. UKS Kushwaha

3:20 – 4:00 Groupwork (Coordinator: Dev Nidhi Tiwari)

Group B: Agronomy & Soil Science

Day 1: 17 Asar 2080
Session 5: Time: 2:00 – 5:20
Chair: Dr. Shree Prasad Bista Reporter: Arjun Prakash Poudel

Day 2: 18 Asar 2080
Session 6: Time: 8:00 – 11:00
Chair: Dr. Mathura Yadav Reporter: Dr. Nabin Rawal

11:00 – 4:00 Poster Presentation, Lunch & Groupwork (Coordinator: Dr. Bandhu Raj Baral

Group C: Plant Protection

Day 1: 17 Asar 2080
Chair: Dr. ASR Bajracharya Reporter: Dr. Naresh Dangi
Session 7: Time: 2:00 – 4:00

Day 2: 18 Asar 2080
Session 8: Time: 8:00 – 9:40
Chair: Dr. Suraj Baidya Reporter: Dr. Ram Bahadur Khadka

9:40 – 4:00 Poster Presentation, Lunch and Groupwork (Coordinator: Dr. ASR Bajracharya)

Group D: PMAMP, Socioeconomics and Food Research

Day 1: 17 Asar 2080

Session 9: Time: 2:00 – 5:00
Chair: Dr. Kalika Prasad Upadhyay Reporter: Dr. Bibek Sapkota

Day 2: 18 Asar 2080

8:00 – 4:00 Poster Presentation, Lunch & Groupwork (Mr. Keshav Prasad Shrestha)

Contingency Sessions at National Maize Research Program, Rampur, Chitwan

Day 1: 17 Asar 2080

Session 10 (Combined Session): 10:00 – 12:00 Coordinator's Report Presentation
Chair: Tirtha Rijal Rapporteur:

Paper Presentation Parallel Sessions

Group A: Plant Breeding and Genetics

Session Chair: Dr. Ram Baran Yadaw Rapporteur:
Session 11: Time: 12:00 – 5:40

Group B: Agronomy, Soil Science, Plant-Protection & Others

Session 12: Time: 12:00 – 5:40
Chair: **Tirtha Rijal** Rapporteur:

Day 2: 18 Asar 2080: - Groupwork and reporting
Group A: Plant Breeding
Group B: Agronomy, Soil Science, Plant-Protection and Others

Groupwork task for each group

- Consolidate major findings and identify the technologies/findings to be communicated to farmers through extension system
- Identify the varieties that have potentiality for registration/ release
- Identify gaps and suggest way-forward for research in respective disciplines

दोस्रो दिन: १८ असार २०८०

समापन सत्र (Session 13 at Lumle)

उद्घोषक: श्री रमेश आचार्य **प्रतिवेदक: डा. विवेक सापकोटा**

समय	कार्यक्रम	विवरण
४:००	आसन ग्रहण	अध्यक्ष: निर्देशक, बाली तथा बागबानी अनुसन्धान (डा. कृष्ण कुमार मिश्र) प्रमूख अतिथि: डा. टेक बहादुर गुरुङ (भूतपूर्व कार्यकारी निर्देशक) अतिथि: प्रा.डा. दुर्गामणि गौतम
४:५	समूह कार्यको प्रस्तुति (हरेक समूहलाई १० मिनेट)	समूह **A: Plant Breeding & Genetics;** समूह **B: Agronomy & Soil Science;** समूह **C: Plant Protection;** समूह **C: Socioeconomics and Food Research**
४:४५	मन्तब्य	अतिथि
४:५०	मन्तब्य	प्रमूख अतिथि,
४:५५	धन्यबाद ज्ञापन	निर्देशक, कृ.अ.नि. लुम्ले
५:००	समापन	अध्यक्ष

Annex 2: List of Papers and Posters presented at the workshop

(The list excludes those not presented)

A) Coordinators' Report

SN	Title	Venue
1	CR1: Rice Coordinator's report	Rampur
2	CR2: Maize Coordinator's report	Rampur
3	CR3: Legumes Coordinator's report	Lumle
4	CR4: Oilseed Coordinator's report	Rampur
5	CR5: Hill Crops Coordinator's report	Lumle
6	CR6: Sugarcane Coordinator's report	Rampur
7	CR7: Jute Coordinator's report	Rampur

B) Disciplinary Report

SN	Title	Venue
8	DR1: Socioeconomics	Lumle
9	DR2: Agri-Environment	Lumle
10	DR3: Plant Breeding	Lumle
11	DR4: Plant Pathology	Lumle
12	DR5: Soil Science	Lumle
13	DR6: Seed Science	Lumle
14	DR7: Agronomy	Lumle
15	DR8: Biotechnology	Lumle
16	DR9: Food Science	Lumle
17	DR11: Entomology	Lumle

C) Papers related to Plant Breeding and Genetics

SN	Title	Venue
18	PLB1: Evaluation of hybrid rice from Multinational seed companies for Central Terai of Nepal: BP Yadav and AP Poudel	Rampur
19	PLB2: Agro-morphological traits variability of Nepalese soybean landraces: Pradip Thapa, Ram Prasad Mainali, Mukunda Bhattarai, Ajaya Karkee, Krishna Hari Ghimire and Bal Krishna Joshi	Lumle
20	PLB3: Characterization of rice (Oryza sativa L.) landraces grown in Khumaltar, Lalitpur by using morphological marker: Ajaya Karkee, Ram Prasad Mainali, Pradip Thapa, Mukunda Bhattarai, Krishna Hari Ghimire and Bal Krishna Joshi	Lumle
21	PLB4: Performance evaluation of Quality Protein Maize (Zea mays L.) genotypes in Chitwan, Nepal: from yielding perspective: Manoj Kandel, Bhim Nath Adhikari, Shailendra Thapa and Chitra B Kunwar	Rampur
22	PLB5: Varietal Research on Rice Genotypes in the Eastern Mid-hills of Nepal: Phatta Bahadur Baruwal, Govinda Prasad Timsina, Amrit Prasad Poudel and Govinda Basnet	Rampur
23	PLB6: Evaluation of Long Slender Rice Genotypes for sub- tropical region of Nepal: Ramesh K Sah, A P Poudel, S.R Subedi, D. N Tiwari, R. P Sah and R. B Yadaw	Rampur
24	PLB7: Evaluation of Early maturing rice genotypes under Rainfed Lowland Environments in Parwanipur condition: Mitali Kumari Sah, Pradeep Shah, Dil Raj Yadav, Anand Mishra, Anand Chaudhry and Bisheswar Prasad Yadav	Rampur
25	PLB8: Does Nepal Genebank have comprehensive wild rice diversity? Ram P Mainali, Deepa S Shrestha, Krishna H Ghimire, Bal K Joshi, Ajaya Karkee, Mukunda Bhattarai and Pradip Thapa	Lumle

26	PLB9: Study of Interannual variation in agronomic traits in Soybean genotypes in Gandaki Province: Ramesh Acharya, Kalika P Upadhyay and Saroj Kunwar	Lumle
27	PLB10: Evaluation of Medium maturity Groundnut Genotype in Terai Condition, Sarlahi, Nepal: Bisheswar Prasad Yadav, Pramod Wagle, Anand Chaudhary, Mitali Kumari Sah, Subash Subedi and Santosh Rasaily	Rampur
28	PLB11: Evaluation of promising rice genotypes for mid-hill parts of the country at Khumaltar condition: Ujjawal Kumar Singh Kushwaha, Sudeep Subedi, Jiban Shrestha, Bidhya Maharjan, Pallavi Kumari Singh, Keshab Babu Koirala and Bhanu Bhakta Pokhrel	Lumle
29	PLB12: Evaluation of groundnut genotypes at Belachapi, Dhanusha condition: Santosh Raj Tripathi, Dil Raj Yadav, Subash Subedi, Paramanand Sharma and Bheshchandra Khadka	Rampur
30	PLB13: Performance evaluation of Fine and Aromatic Rice in rainfed condition in high cropping intensive area: Ramesh Acharya, Kalika P Upadhyay, Binod Acharya, Devnidhi Tiwari, Amrit Poudel and Bhawana Adhikari	Lumle
31	PLB14: Evaluation of Rice Genotypes Performance in Rainfed Conditions for Yield and Yield components in the Western Terai of Nepal: Suman Bohara, Basistha Acharya, Jharana Upadhaya and Dev Nidhi Tiwari	Lumle
32	PLB15: Evaluation of rice genotypes under irrigated condition for mid hills of Nepal: Sudeep Subedi, Ujjawal Kumar Singh Kushwaha, Jiban Shrestha, Keshab Babu Koirala and Bhanu Bhakta Pokharel	Lumle
33	PLB16: Evaluation of fine and aromatic rice genotypes in Terai region of Province: Binod Yadav, Santosh Raj Tripathi, Keshav Prasad Shrestha, Binod Niraula and Samjhana Sunuwar	Lumle
34	PLB17: Evaluation of Normal Season Irrigated Rice Varieties for Mansoon Season: AP Poudel, DN Tiwari, RB Yadaw, SR Subedi, BR Bastola, RB Rijal, RP Sah, S Tripathi, BP Yadav, GB Hamal, S Bohora, K Pokhrel, BP Kushwaha and AK Yadav	Lumle
35	PLB19: Assessment of Promising Hybrid Maize Genotypes Suitable for Hill Domain of Nepal: R. Acharya, K.B. Koirala, M. Basnet, S. Sharma, N.B. Dhami, C. Manandhar, B. Bhat and K. Paudel	Lumle
36	PLB20: Selection of Kidney Bean (Simi/Rajma) genotypes based on On-station and farmer's field trials at Jumla and Kalikot: Resham B Amgai, Takka Sunar and Anil Pokharel	Lumle
37	PLB21: Identification of Superior Rainfed Lowland Medium Rice Genotypes for sub- tropical region: Sushil Raj Subedi, Dev Nidhi Tiwari, A P Poudel, Raju Mahashet and Ram Baran Yadaw	Rampur
38	PLB22: Identification of Superior Fine and Aromatic Rice Genotypes for sub-tropical region: Sushil Raj Subedi, Dev Nidhi Tiwari, A P Poudel, Raju Mahashet and Ram Baran Yadaw	Rampur
39	PLB23: Evaluation of Tossa Jute (Cochorus olitorious L.) Genotypes for Yield and Yield Attributing Traits in Eastern Terai of Province-, Nepal: Sujan Karki, Tirtha Raj Rijal, Binod Kumar Gupta and Sabita Sharma	Rampur
40	PLB24: Evaluation of drought tolerant rice genotypes for subtropical regions of Nepal: AP Poudel, SR Subedi RB Rijal, RB Yadaw, DN Tiwari, RP Sah BP Kushwaha and AK Yadav	Lumle
41	PLB25: Performance Evaluation of Upland Rice Genotypes for Varietal Development in Central Terai of Nepal: Rabendra P. Sah, Dev N. Tiwari, Ramesh B. Rijal, Sushil R. Subedi, Amrit P. Poudel, Umesh Sah, Rb Yadaw and Raju Mahaseth	Rampur
42	PLB26: Evaluation of Soybean [Glycine max (L.) Merrill] Genotypes at mid hill of Karnali Province Nepal: Netra Hari Ghimire, Rajendra Darai and Durbal Yadav	Lumle
43	PLB27: Glorious Journey of Submergence Breeding to Landmark Achievement with Release of Gangasagar- And Gangasagar- As Submergence Tolerant Rice Variety for Nepal: DN Tiwari, S Dixit, RB Yadav, DR Yadav, AP Poudel, SR Subedi, BR Bastola, RB Rijal and RP Sah	Lumle
44	PLB28: AMMI and GGE biplot analysis of soybean genotypes for adaptability and stability in a multi-environment trial in Nepal: Rajendra Darai, Padam P. Poudel, Kumar Subedi, Mathura Yadav, Netra H. Ghimire, Anil Pokharel, Subash Subedi, Amar B. Pun, Dhruba Regmi, Krishna H. Dhakal and Nirmala Khadka	Lumle

45	PLB29: Assessment of yield and yield attributes of horsegram native landraces in Lumbini and the far western province of Nepal: Rajendra Darai, Kumar Subedi, Padam Prasad Poudel, Bal Krishna Joshi and Sishir Adhikary	Lumle
46	PLB31: Investigating Early and Suitable Rice Genotype for Rainfed Lowland Areas of Central Terai of Nepal: Dev N. Tiwari, Ramesh B. Rijal, Amrit P. Poudel, Sushil R. Subedi, Rb Yadav and Raju Mahaseth	Lumle
47	PLB32: Varietal Development Works on Submergence Tolerance Under Flash Flood Condition in Lowland Terai Region of Nepal: Dev N. Tiwari, Rb Yadav and Ramesh P. Sah	Lumle
48	PLB33: Genetic Variability and Correlation of Quantitative Traits in Rice Genotypes under Rainfed Upland Conditions of Jeetpur, Bara: Dil R Yadav, Jagat B Adhikari, Dinesh K Chaudhary and Chakra Ghalan	Rampur
49	PLB34: Pre-breeding on finger millet reveals elite landraces for mid hills of Nepal: Krishna H. Ghimire, Ajaya Karkee, Pradip Thapa, Ram P. Mainali, Mukunda Bhattarai and Bal K. Joshi	Lumle
50	PLB35: Selection of foxtail millet genotypes based on On- station and farmer's field trials at Jumla: Resham B Amgai, Lokendra Oli, Hari N Mandal and Anil Pokharel	Lumle
51	PLB36: Evaluation of Co-ordinated Farmer Filed Trial for Early Maturity Groundnut Genotype in Terai Condition, Nepal: Bisheswar Prasad Yadav, Pramod Wagle, Anand Chaudhary, Mitali Kumari Sah, Santosh Rasaily	Rampur
52	PLB37: Selection of Maize genotypes based on On-station and farmer's field trials at Jumla: Resham B Amgai, Lokendra Oli Hari N Mandal and Anil Pokharel	Lumle
53	PLB38: Selection of proso millet genotypes based on On- station and farmer's field trials at Jumla: Resham B Amgai, Lokendra Oli Hari N Mandal and Anil Pokharel	Lumle
54	PLB39: Selection of MAS developed enhanced Jumli Marshi Rice lines based on On-station and farmer's field trials at Jumla: Resham B Amgai, Dhan B Budha, Lokendra Oli and Anil Pokharel	Lumle
55	PLB40: Evaluation of rice genotypes under irrigated condition for Terai region of Province of Nepal: Binod Yadav, Santosh Raj Tripathi, Keshav Prasad Shrestha, Binod Niraula and Samjhana Sunuwar	Lumle
56	PLB41: Varietal Evaluation of Boro Rice Genotypes at NRRP Hardinath during 0/0-00/: RB Rijal, DN Tiwari, RB Yadaw, SR Subedi, AP Poudel, DR Yadav, C Gyawali, DK Saphi, U Sah, RP Sah, S Shrestha, MF Ali, RK Sah, B Yadaw, AK Yadav and RM Yadav	Rampur
57	PLB42: Evaluation of Short Duration with High Yielding Rice Varieties for Spring Season during: RB Yadaw, Sushil R. Subedi, Ramesh B. Rijal, Dev N. Tiwari, B. Yadaw, S. P. Tripathi, C. Gyawali and P Sharma	Rampur
58	PLB44: Evaluation of Normal Irrigated Rice Genotypes in Western Terai Region of Nepal: Rajendra Prasad Yadav, Sushil Raj Subedi, Khem Raj Pant, Bishwas Raj Bastola, Deepak Pnadey, Bishnu Poudel, Dev Nidhi Tiwari and Roshan Basnet	Rampur
59	PLB46: Evaluation of pigeon pea genotypes in central terai region of Nepal: Santosh Raj Tripathi, Dil Raj Yadav, Rajendra Darai, Paramanand Sharma and Bheshchandra Khadka	Rampur

D) **Papers related to Soil Science**

SN	Title	Venue
60	SS1: Effect of Neem Oil Coated and Common Urea with Different Nitrogen Levels on Rice Yield and Nitrogen Use Efficiency (NUE) in Kaski, Nepal: Sandip Timilsina and Shree Prasad Vista	Lumle
61	SS3: Trends of Rice Yield and Soil Fertility in a Long-Term Fertility Trial: Narayan Khatri, Nabin Rawal, Bisheshwor Prasad Pandey, Bishnu Prasad Chaurasiya and Chandra Prakash Upadhyay	Lumle
62	SS4: Update of domain specific fertilizer recommendation dose of rice and maize: Shree Prasad Vista and Nabin Rawal	Lumle
63	SS5: Status of Digital Soil Map and Soil Information System of Nepal: Shree Prasad Vista, Sabina Devkota and Nabin Rawal	Lumle

64	SS6: Nutrient Management Study on Tartary Buckwheat (*Fagopyrum Tataricum*) Under Dolkha Condition of Nepal: Bandhu Raj Baral, Subash Subedi, Jagat B. Adhikari, Suk B. Gurung and Narayan B. Dhami	Lumle
65	SS7: Evaluation of hybrid maize varieties under different Nitrogen levels in the central mid-hills of Nepal: Pankaj Gyawaly, Reshama Neupane, Rajendra Kumar Bhattarai, Bhimsen Chaulagain, Sangita Kaduwal and Soni Das	Lumle
66	SS9: Fertilizer Response by Finger Millet Under Dolkha Condition of Nepal: B. R. Baral, S. Subedi, J. B. Adhikari, S. B. Gurung and N. B. Dhami	Lumle
67	SS10: Agronomic Performance Of Long-Term Fertility Trial On Paddy-Wheat Cropping System at Doar, Lumbini Province, Khajura,Banke: R.D. Chaudhary, P. P. Poudel, S. Ahamad, S. Bohara and D.K. Shaphi	Lumle
68	SS11: Nutrient Management in Sunflower (Helianthus annus L.): S. R. Shrestha, S. R. Tripathi, S. Nath, D. Sherpa, S. Kandel and B. Dahal	Lumle

E) Papers related to Agronomy

SN	Title	Venue
69	AGR2: Improving Rice Productivity Through Varietal Development Under Rainfed Lowland Early condition in Mid Hills of Sudurpaschim Province: Mathura Yadav, Bishnu P Joshi, Naresh Thapa, Ram Baran Yadaw and Dev Nidhi Tiwari	Lumle
70	AGR3: Effect of different herbicides in weed management in Transplanted rice: Rajendra Kumar Bhattarai, Bhimsen Chaulagain and Pankaj Gaywaly	Lumle
71	AGR5: Identification of Suitable Planting Density & Optimum Nitrogen Dose in Mid-hills of Nepal: Bhimsen Chaualgain	Lumle
72	AGR6: Storability of Different Hermetic Containers on Seed Quality Attributes of Maize (Zea Mays L.) In Khumaltar, Lalitpur: Gopal Bhandari, Bhim Nath Adhikari, Balram Bhandari, Jagat Bandhu Adhikari, Sangita Kaduwal and Pragya Pokhrel	Rampur
73	AGR7: Effect of crop residue and green manuring on crop productivity and soil properties under rice-wheat cropping system: Athar Husain Khan, Bisheshwor Prasad Pandey, Govinda Prasad, Paudel and Vishnu Prasad	Lumle
74	AGR9: Performance of Rice Varieties under Direct Sowing Condition in the Eastern Terai Region of Province of Nepal: Binod Yadav, PhattaBahadur Baruwal, KP Shrestha, Santosh Raj Tripathi, S. Ansari, Binod Niraula and Samjhana Sunuwar	Lumle
75	AGR10: The effect of sowing date on yield and yield attribute performance of mungbean genotypes in Nepal's Terai environment: Sangharsh Raj Dangi, Rajendra Darai, Anil Pokharel, Shova Shrestha, PP Poudel, Ramesh Bdr. Chaudhary, Shishir Adhikari, Dependra Chaudhary and Purna Bahadur Pudha	Lumle
76	AGR11: Evaluation of Suitable Weed Management Practices on Direct Seeded Rice in Western Terai of Nepal: Ram Das Chaudhary, Padam P. Poudel, Dr. Samid Ahamad, Suman Bohara and Dev Kumar Shaphi	Lumle
77	AGR13: Effect of date of seeding and different rice varieties on yield components under irrigated condition in sub-tropical region of Nepal: D.K Saphi and U. Sah	Rampur
78	AGR15: Performance of Summer Maize Grown with The Graded Levels of Nitrogen and Various Concentrations of Zinc Seed Coating at Khumaltar, Nepal: Gopal Bhandari, Suman Dhakal, Santosh Marahatta and Tara Bahadur Ghimire	Rampur

F) Papers related to Entomology

SN	Title	Venue
79	ENT1: Balanced fertilizer application reduces the incidence of American fall armyworm in maize crop: Kashinath Chiluwal, Sandip Timilsina, Kailash Shrestha, Eni Shrestha, Shilpa Devkota, Sharad Sigdel and Lalit Shah	Lumle
80	*ENT2: Field Efficacy of Insecticides against Fall Armyworm, Spodoptera frugiperda (J. E. Smith) on Maize at Rampur, Chitwan: Ghana Shyam Bhandari and Debu Maya Bhandari*	Rampur
81	ENT4: Screening of Rice Genotypes against Brown Plant Hopper, *Nilaparvata lugens* (Stal) under Field condition at NRRP: Md.Farhat Ali and DN Tiwari	Rampur

82	ENT5: Study of different sowing dates on maize aphid (*Rhopalosiphum maidis* Fitch) infestation, and yield of maize varieties in inner terai region of Nepal: Saraswati Neupane, Subash Subedi, Gopal Bhandari and Ramesh Shrestha	Rampur
83	ENT6: Screening of Maize Genotypes against Fall Armyworm, *Spodoptera frugiperda* (J.E. Smith) under natural field condition at Rampur, Chitwan: Ghana Shyam Bhandari and Debu Maya Bhandari	Rampur
84	ENT7: Evaluation of Chemical Insecticides against fall armyworm, *Spodoptera frugiperda* (J. E. Smith) in maize: ASR Bajracharya and Binu Bhat	Lumle

G) **Papers related to Plant Pathology**

SN	Title	Venue
85	PLP1: Assessment of finger millet genotypes against blast caused by Pyricularia grisea under field condition at mid hill Nepal: Subash Subedi, Bandhu Raj Baral Dinesh Nepali and Nabaraj Subedi	Rampur
86	PLP2: Evaluation of groundnut genotypes for leaf spot resistance and high yielding traits in terai condition at Nawalpur, Sarlahi, Nepal: Subash Subedi, Bisheshwar Prasad Yadav and Pramod Wagle	Rampur
87	PLP3: Screening of Rice Genotypes for Resistance to Leaf Blast (Pyricularia Oryzae) Disease Under Field Conditions at Khajura: Basistha Acharya, Ram B. Khadka and Sujata K.C	Lumle
88	PLP4: Screening of Maize Genotypes against foliar disease caused by Cercospora zeae-maydis and Exserohilum turcicum at Baluwapati, Kavrepalanchowk farmers field: C. Manandhar, S. Baidya and S.B. Gurung	Lumle
89	PLP5: Screening Of Rice Genotypes Against Blast Disease In Blast Screening Nursery At Parwanipur, Bara: Pramod Wagle, Bisheswar Prasad Yadav,Janga Bahadur Prasad, Anand Chaudharyraj Kishor Mahato and Sundar Shrestha	Rampur
90	PLP7: Response of rice genotypes to bacterial leaf blight (Xanthomonas Oryzae pv. Oryzae) under field conditions: Sundar Shrestha, Parbati Joshi and Basistha Acharya	Lumle
91	PLP8: Screening of mungbean genotypes against mungbean yellow mosaic disease under natural conditions: Ramesh Bdr. Chaudhary, Laxman aryal, Rajendra Darai and Sangharash Raj Dangi	Lumle
92	PLP9: Spatial Trends and Distribution Patterns of False Smut Disease of Rice in Western Nepal: Ram B. Khadka, Basistha Acharya, Sujata K.C., Arpan Parajuli, Bibechana Poudel, Sachida Pokhrel, Bibek Dabargainya, and Shristi Upadhya	Lumle
93	PLP11: Field Evaluation of Soybean Genotypes for the Identification of Resistant Source against Soybean Yellow Mosaic Disease: L. Aryal, R. Darai, R. Basnet, R. Chaudhary, K. Subedi and D. Chaudhary	Lumle
94	PLP12: Evaluation of Nepalese rice landraces for blast disease resistance in high hill of Nepal: Suk Bahadur Gurung and Narayan B Dhami	Rampur

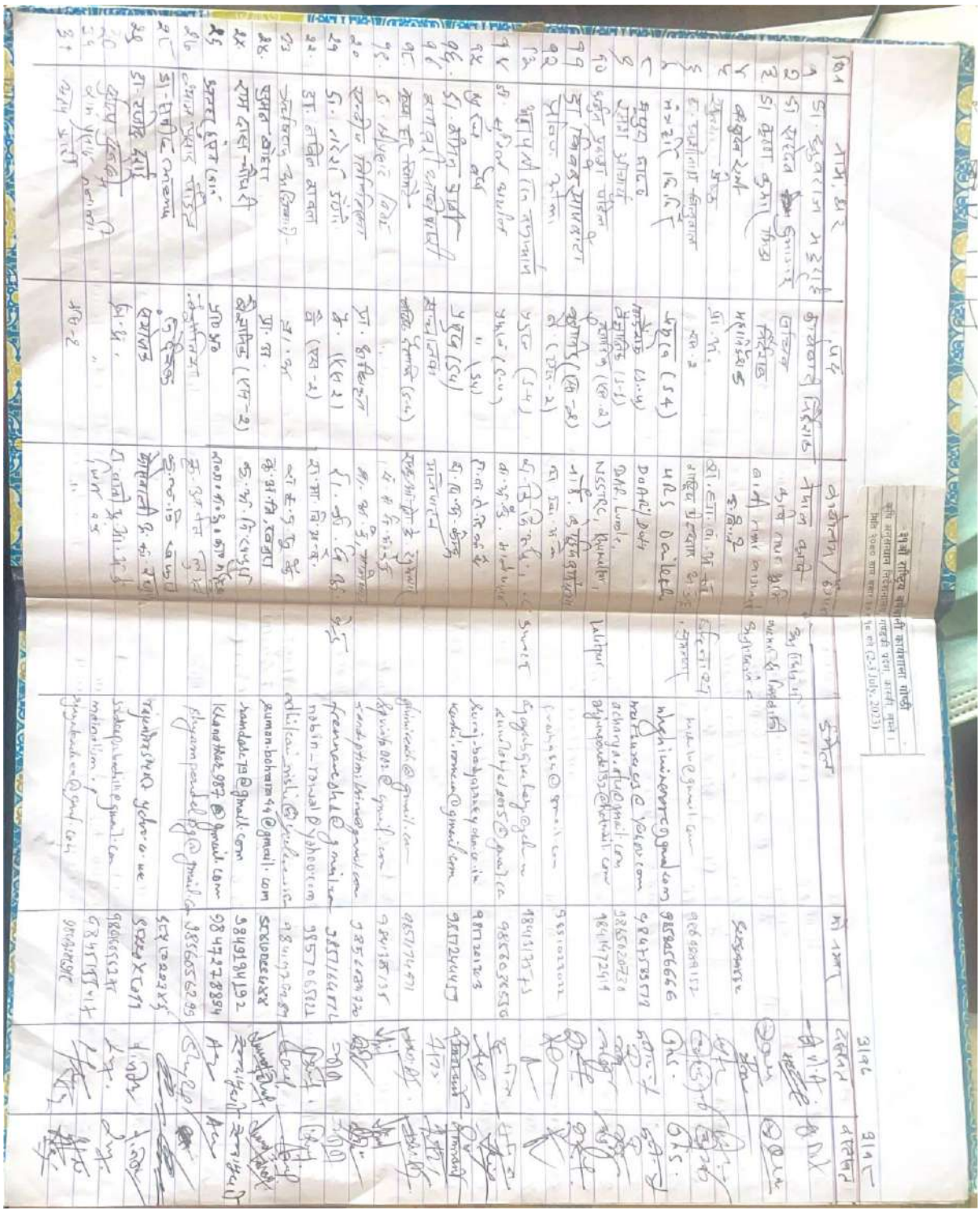
H) **Papers related to Socioeconomics and Food Science**

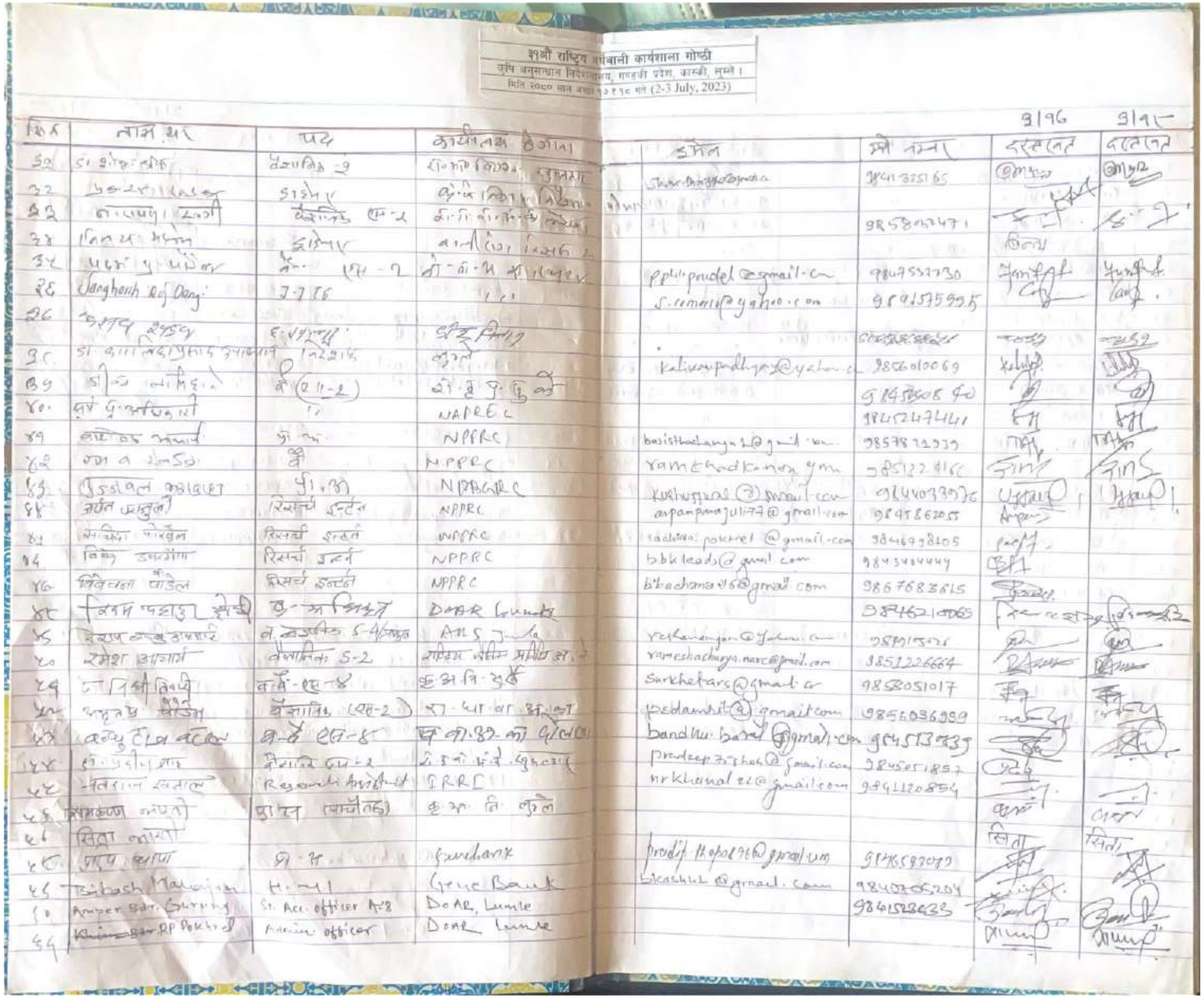
SN	Title	Venue
95	SOE3: Adoption and Impact of Maize varieties in Nepal: Surya P. Adhikari, Krishna P. Adhikari, Meena Kharel and Bibek Sapkota	Lumle
96	SOE4: Unlocking the Potential of Soybean Production and Nutrition in Nepal: A Study on the Status, Production Potential, and Ethno Dietary Use: N. Upadhyay, S. Maharjan, K.P. Timsina and B. Sapkota	Lumle
97	SOE5: Do Phone based SMS services increase the profitability of the farmers? Jeevan Lamichhane, Krishna Timsina and Yubraj Bhusal	Lumle
98	FR1: Physical, Milling, Cooking, Nutritional, and Textural Quality Parameters of Released and Local varieties of Rice (Oryza sativa L.): Pravin Ojha, Dewaki Rai, Roman Karki, Sushma Maharjan, Utshah Manandhar and Sophi Maharjan	Lumle
99	FR2: Effect of germination time on the bioactive properties, anti- nutritional factors, enzymes, and reducing sugar of different genotypes of prosomillet, foxtail millet, and sorghum: Roman Karki, Pravin Ojha, Sushma Maharjan, Utsah Manandhar, Sophie Maharjan and Sunil Maharjan	Lumle

I) List of Posters

SN	Title	Venue
100	P1: Maize Yield, Nitrogen Accumulation and Its Efficiency as Influenced by Varying Nitrogen Level: Nabin Rawal, Shree Prasad Vista and Dinesh Khadka	Lumle
101	P11: Lethal and Sub-lethal Effects of Beauveria bassiana commercial products on *Spodoptera frugiperda* (J. E. Smith) in Maize: Utkal Sapkota, Naresh Dangi, Dipak Khanal and Resham Bahadur Thapa	Lumle
102	P12: Evaluation of Zinc Levels on The Growth and Productivity of Spring Rice at Chakhhapur, Bardiya, Nepal: Sasmita Gautam, Prof. Shrawan Kumar Shah and Shreeya Adhikari	Lumle
103	P15: Fertilizer management for the parental lines of Rampur Hybrid-10 under Rampur Chitwan Condition: Parbati Adhikari, Roshan Babu Ojha, Krishna Khatri	Lumle
104	P16: Effect of Seed Priming with Ascorbic Acid and Plant Growth Promoting Beneficial Microbes on Growth of Mungbean: Arpan Parajuli, Bibechana Paudel, Bibek Dabargainya, Sachida Pokhrel, Shristi Upadhyaya, Barsha Poudel and Ram B Khadka	Lumle
105	P2: Efficacy evaluation of chemical insecticides used against brown plant hopper *Nilaparvata lugens* (Stål) (Hemiptera: Delphacidae) in laboratory: Naresh Dangi, Kapil Paudel, Pawan Dhakal, Indu Regmi, Bikash Bhusal, Sunil Aryal and Ajaya Shree Ratna Bajracharya	Lumle
106	P3: Effect of micronutrients for increasing cowpea productivity in cowpea -onion cropping system in Nepalgunj: Shova Shrestha, Sangharsh dangi Kamana Rayamajhi, Sabina Devkota	Lumle
107	P4: Evaluation of Promising Pigeonpea Genotypes During Summer in Western Terai of Nepal: Padam P. Poudel, Rajendra Darai, Man B. Chadaro, Shanta B. Malla and Kumar Subedi	Lumle
108	P5: Enhancing Soybean Quality through Marker-Assisted Screening: A Study on Nepalese Germplasm Collections: Shreejan Pokhrel, Namita Bhattarai, Ramesh Acharya and Bignya Chandra Khanal	Lumle
109	P7: Roles of Plant Growth Promoting Beneficial Micro-organisms in Thermotolerance in Rice: Bibek Dabargainya, Sachida Pokhrel, Arpan Parajuli, Bibechana Paudel, Shristi Upadhyaya, and Ram B. Khadka	Lumle
110	P8: Effect of seed biopriming with different Trichoderma strains on germination and vigor of corn: Sachida Pokhrel, Sristi Upadhyaya, Arpan Parajuli, Bibechana Paudel, Bibek Dabargainya and Ram B. Khadka	Lumle
111	P9: Population fluctuations of Brown Plant Hopper Nilparvata lugens Stal. and White Backed Plant Hopper Sogatella furcifera Howarth on rice at NRRP, Hardinath: Md.Farhat Ali	Rampur

Annex 3: List of participants





तेस्रो राष्ट्रिय बालीनाली कार्यशाला गोष्ठी
कृषि अनुसन्धान निर्देशनालय, गण्डकी प्रदेश, कास्की, लुम्ले ।
मिति २०८० साल असार १७ र १८ गते (2-3 July, 2023)

क्र.सं	नाम थर	पद	कार्यालय ठेगाना	इमेल	मो नम्बर	दस्तखत ३/१६	दस्तखत ३/१७
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३४	[illegible]	ड्राइभर	[illegible]			[signature]	
३५	[illegible]	[illegible]	[illegible]	pplipaudel@gmail.com	9847537730	[signature]	[signature]
३६	Sangharsh Raj Dangi	[illegible]		s.remi[illegible]@yahoo.com	9841575995	[signature]	[signature]
३७	[illegible]	[illegible]	[illegible]		[illegible]	[signature]	[signature]
३८	डा. [illegible]	[illegible]	[illegible]	kalivaspadhyay@yahoo.com	9856010069	[signature]	[signature]
३९	[illegible]	[illegible]	[illegible]		9845808540	[signature]	[signature]
४०	[illegible]		NARC		9845247441	[signature]	[signature]
४१	[illegible]	[illegible]	NPPRC	basisthacharya[illegible]@gmail.com	9857871939	[signature]	[signature]
४२	[illegible]	[illegible]	NPPRC	ramchandkanan[illegible]	[illegible]	[signature]	[signature]
४३	[illegible]	[illegible]	NPPRC	kushupta[illegible]@gmail.com	[illegible]	[signature]	[signature]
४४	अर्पण [illegible]	रिसर्च एसोसिएट	NPPRC	arpanpun[illegible]@gmail.com	9849862055	[signature]	
४५	[illegible] पोखरेल	रिसर्च एसोसिएट	NPPRC	sadiksha.pokhrel@gmail.com	9846798105	[signature]	
४६	[illegible]	रिसर्च एसोसिएट	NPPRC	bbkleads@gmail.com	9843484444	[signature]	
४७	बिवेचना पौडेल	रिसर्च एसोसिएट	NPPRC	bibechana[illegible]@gmail.com	9867683815	[signature]	
४८	[illegible]	[illegible]	DoAR Lumle		9846210065	[signature]	[signature]
४९	[illegible]	[illegible]	ARS [illegible]	[illegible]	[illegible]	[signature]	[signature]
५०	रमेश आचार्य	वैज्ञानिक S-2	[illegible]	rameshacharya.narc@gmail.com	9851226664	[signature]	[signature]
५१	[illegible]	[illegible]	[illegible]	sarkhetars@gmail.com	9858051017	[signature]	[signature]
५२	[illegible]	वैज्ञानिक (एस-२)	[illegible]	pedamhit@gmail.com	9856036959	[signature]	[signature]
५३	[illegible]	[illegible]	[illegible]	bandhu.baral@gmail.com	9845138339	[signature]	[signature]
५४	[illegible]	[illegible]	[illegible]	pradeep[illegible]@gmail.com	9845051857	[signature]	
५५	[illegible]	Research Assistant	[illegible]	nrkhanal[illegible]@gmail.com	9841120854	[signature]	[signature]
५६	[illegible]	[illegible]	[illegible] लुम्ले			[signature]	[signature]
५७	सिता [illegible]					[signature]	[signature]
५८	[illegible]	[illegible]	Gundbank	prodip[illegible]@gmail.com	[illegible]	[signature]	[signature]
५९	Bikash Maharjan	H. [illegible]	Gene Bank	bikashkl@gmail.com	9840705204	[signature]	[signature]
६०	Amber Bdr. Gurung	Sr. Acc. officer A-8	DoAR, Lumle		9841528633	[signature]	[signature]
६१	[illegible] PP Pokhrel	Admin officer	DoAR, Lumle			[signature]	[signature]

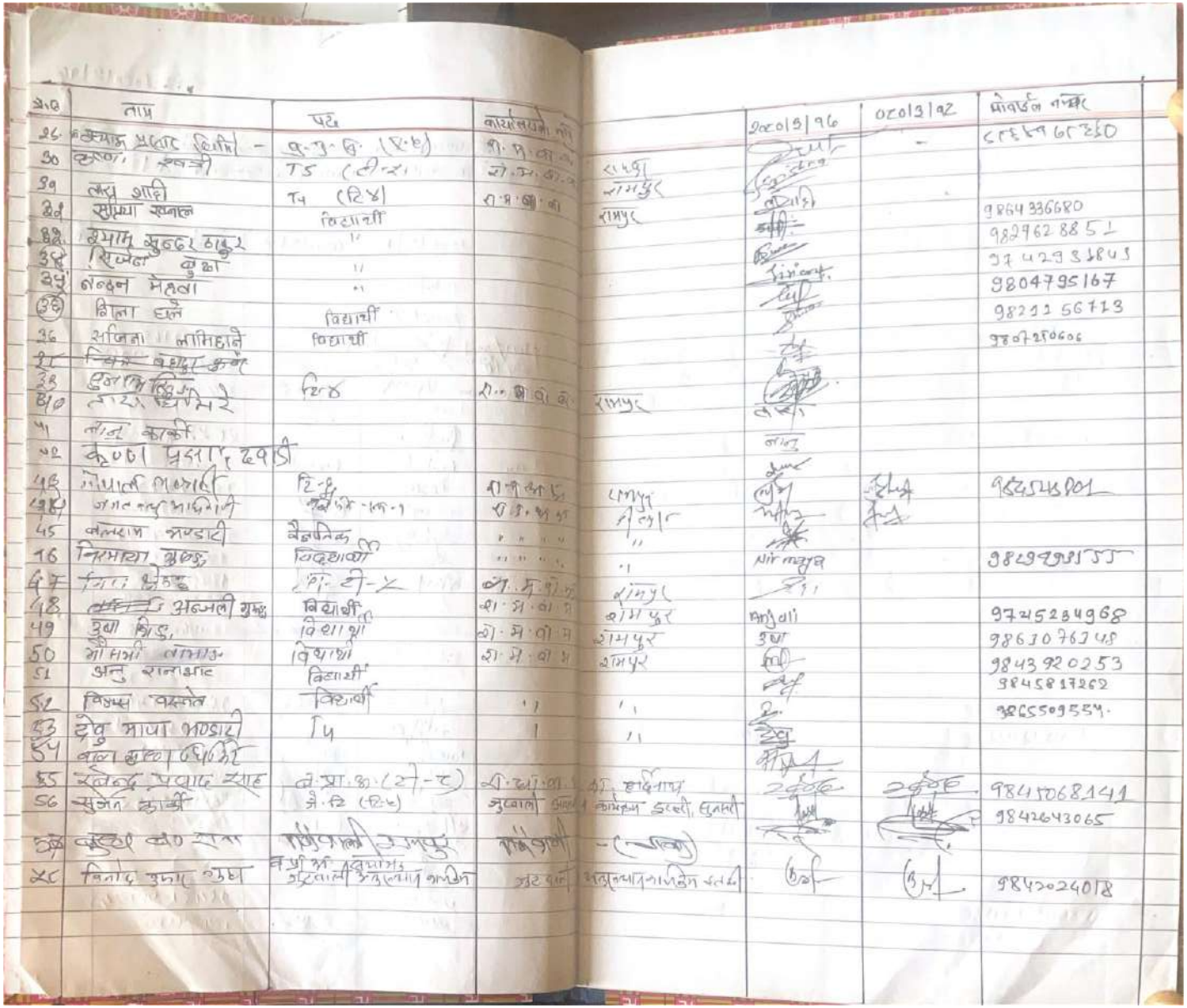
श्री राष्ट्रिय बाली कार्यशाला गोष्ठी
कृषि अनुसन्धान निर्देशनालय, गण्डकी प्रदेश, कास्की, लुम्ले ।
मिति २०८० साल असार १७ र १८ गते (2-3 July, 2023)

क्र.सं.	नाम	पद	कार्यालयको नाम	इमेल	मो नम्बर	दस्तखत ३/१७	दस्तखत ३/१८
५२	बद्री प्रसाद यादव	[illegible]	कृषि निर्देशनालय पोखरा		९८४२९८४०१	[signature]	[signature]
५३	छुदे मगर	"	कृ. अ. निर्देशनालय लुम्ले		९८४६४०८६०	[signature]	[signature]
५४	दिपक आचार्य	"	प्रा. कृ. बाली पु.अ. केन्द्र, कुमलटार		९८४१४९३४३६	[signature]	[signature]
५५	राम प्रसाद विश्वकर्मा	"	- " -		९८४११९८३४२०	[signature]	[signature]
५६	दुर्गादेवी [illegible]	प्रा.स. (बाली विज्ञान)	कृ. अ. नि. लुम्ले		९८४६६८४५७७	[signature]	[signature]
५७	[illegible]	प्र. अधिकृत	- " -			[signature]	[signature]
५८	प्रकाश [illegible]		कृ. अ. [illegible]			[signature]	[signature]
५९	लेख बहादुर गुरुङ	कृ. प्रा. [illegible]	- " -			[signature]	
६०	श्रीमद्र पौडेल	पत्रकार	N.T.V / आदर्श [illegible]	Ashreebhadra@gmail.com	९८४६०८४९००	[signature]	
६१	पंकज शवाली	प्रा.अ.	रा. बाली अ. के. [illegible]		९८४७००४८६६	[signature]	[signature]
६२	भिमसेन चौलागाई	वैज्ञानिक	"	bhimsen chaulagain@gmail.com	9860679982	[signature]	[signature]
६३	स्मिता गौतम	विद्यार्थी	कृषि तथा वन [illegible]	gautamsmita63@gmail.com	9863196598	[signature]	[signature]
६४	अर्जुन [illegible]	व. कृषि वि. अ.	कृषि विकास निर्देशनालय [illegible]	adjnwali@gmail.com	9857066697	[signature]	
६५	विनोद यादव	प्र.अ. (नेत्र)	कृ. अ. नि. [illegible]	binodyadav2822@gmail.com	9827730244	[signature]	[signature]
६६	शुक्रराज श्रेष्ठ	वैज्ञानिक (एस-२)	"	shukrarajchrestha@gmail.com	9846112083	[signature]	[signature]
६७	केशव प्रसाद श्रेष्ठ	निर्देशक	कृ. अ. निर्देशनालय [illegible]	kpshrestha.solid@gmail.com	9851112805	[signature]	[signature]
६८	अमर बे. पुन	[illegible]	रा. कृ. बा. अ. केन्द्र [illegible]	amarppun@gmail.com	9851174038	[signature]	
६९	मित्र प्रसाद दाहाल		कृ. अ. नि. तरहरा		9842024493	[signature]	[signature]
७०	सुर्य कु. [illegible]	[illegible]	कृ. अ. [illegible]			[signature]	[signature]
७१	पल्लवी सिंह	व. वै. (एस-४)	रा. बा. पु. अ. के. [illegible]	palluvid.singh@gmail.com	9841598391	[signature]	[signature]
७२	[illegible]	[illegible]	[illegible]	[illegible]@gmail.com	9847124448		[signature]
७३	टेक [illegible]			[illegible]@hotmail.com	9857184735		[signature]
७४	प्रा. डा. दुर्गामणि गौतम	प्राध्यापक	कृ. व. वि. [illegible]	durgagautam2013@gmail	9815065914	[signature]	[signature]
७५	त्रि. शो. [illegible]	वैज्ञानिक	NARC				
७६							
७७							
७८							
७९							
८०							

मिति: 2080/3/96

आज मिति २०८० / असार ९६ गते नेपाल कृषि अनुसन्धान परिषदमा रहेका विभिन्न विषयगत कार्यालय, कार्यक्रम तथा केन्द्रहरूको सङ्क्षिप्त परिचय तथा अन्य कर्मचारीहरूको उपस्थिति यस्तो रहेको छ ।

क्र.सं	नाम	पद	कार्यालयको नाम	२०८०/३/९६	२०८०/३/९८	मोबाईल नम्बर	कैफियत
१.	डा. अर्जुन कुमार मेहता	निर्देशक	AFU, Rampur				
२.	श्री कृष्ण अधिकारी	सूचना तथा सञ्चारकर्मी	"				
३.	श्री चित्र बहादुर खत्री	" " "	"				
४.	डा. नारायण प्रसाद भट्ट	निर्देशक	DOAR, Pakhribas			9855012163	
५.	डा. ध्रुव चरण भट्ट	वरिष्ठ वैज्ञानिक	दी. वर्षा.			9CK89BB0R8	
६.	श्री तिर्थ राज दिवाल	प्रशासकीय अधिकृत	दी. वर्षा.			9645044066	
७.	डा. कृष्ण बहादुर	प्रा. अधिकृत	कृ. अ. के. प्रा.			9825378807	
८.	डा. दिनेराज पाण्डे	वै. वै (VH-6)	NSRP, Sunsari			9CXX0XX026	
९.	तितली कुमारी ठाकुर	प्रशासन	कृ. अ. के. प्रा.			9841352012	
१०.	डा. रविन्द्र कुमार चौधरी	वैज्ञानिक - २	दी. वर्षा.			9871228015	
११.	डा. सन्तोष सपकोटा	अ. वै (VH-8)	नेपालगञ्ज			9854036252	
१२.	डा. सदानन्द राज त्रिपाठी	"	कृ. अ. के. प्रा.			9854024350	
१३.	Suk Bdr. Gurung	S-2	NARP			9851247580	
१४.	डा. सरस्वती उपाध्याय	S-4	NMRP, Rampur			9845068570	
१५.	पुष्प प्रसाद ढुंगाना	A-1	NMRP			98510-39780	
१६.	निरुदेव कुमार अग्रवाल	T-4	NMRP Rampur			9841603205	
१७.	प्रमोद पाठक	S-1	DOAR, Hariwan (Sarlahi, Parwanipur)			9845367410	
१८.	श्री फजरुल हाली	प्र.प्र.	NMRP, Rampur			9854027028	
१९.	प्रभाष कंडेल	प्रा. अ.	NMRP, Rampur			9845337464	
२०.	गोविन्द प्र० कोइराला	"	"			9855055001	
२१.	विश्व कुमार जाट	T-5	NRRP, Hardinath			9808827749	
२२.	रोशन पोखरेल	T-6	NRRP, Hardinath			9841600073	
२३.	[illegible]	S-4	NMRP			9845045855	
२४.	[illegible]	S-3	NLRP Hardinath			9[illegible]	
२५.	[illegible]	T-6	NMRP				
२६.	डा. घनश्याम भट्टराई	S-2	NMRP			9[illegible]	
२७.	[illegible]	T-5	" "			98451-47251	
२८.	डा. सुरेन्द्र राज सुवेदी	S-2	NRRP			9841341925	



क्र.सं.	नाम	पद	कार्यालय/संस्था		02/03/96	02/03/97	मोबाईल नम्बर
26	~~व्यक्त~~ प्रसाद [illegible]	ए.यू.डि. (ई.ए)	डी.पी.ओ.				9412867250
30	कृष्ण [illegible] स्वत्री	TS (टी-२)	जो.अ.का.	रामपुर			
29	लक्ष्मी गढ़ी	T4 (टि४)	ग.म.का.	रामपुर			
28	सौम्या रमोला	विद्यार्थी					9864336680
27	[illegible]	"					9829628851
25	[illegible]	"					9412938543
24	[illegible]	"					9804795167
23	[illegible]	विद्यार्थी					9821156713
22	[illegible]	विद्यार्थी					9807250606
21	~~[illegible]~~						
20	[illegible]	टि४	ग.[illegible]	रामपुर			
19	[illegible]						
18	कु०वी प्रसाद [illegible]						
17	गोपाल [illegible]	टि-४	डी.पी.ओ.	रामपुर			
16	जगत [illegible]	[illegible]-ए-१	डी.[illegible]	[illegible]			
15	[illegible]	वैज्ञानिक डी	" " "	"			
14	निर्मला [illegible]	विद्यार्थी	" " "	"			
13	[illegible]	टी-टी-५	डी.[illegible]	रामपुर			
12	~~[illegible]~~ अंजली गुरुङ	विद्यार्थी	डी.म.का.	रामपुर	Anjali		9742584968
11	[illegible]	विद्यार्थी	डी.म.का.	रामपुर	[illegible]		9863076148
10	[illegible]	विद्यार्थी	डी.म.का.	रामपुर	[illegible]		9843920253
9	[illegible]	विद्यार्थी			[illegible]		9845817262
8	[illegible]	"	"	"	[illegible]		9865509554
7	[illegible]	T4	"	"	[illegible]		
6	[illegible]				[illegible]		
5	[illegible]	ए.[illegible] (टी-ए)	डी.[illegible]	डी. हर्बोला	[illegible]	[illegible]	9845068141
4	[illegible]	जे.ई (टि४)	[illegible]	[illegible]	[illegible]	[illegible]	9842643065
3	[illegible]	[illegible]	[illegible]	- (अवकाश)			
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9845024018
1	विनोद कुमार [illegible]						

Annex 4: Event photographs


PREMIER


Government of Nepal
Nepal Agricultural Research Council
31st National Summer Crops Workshop
Date : 17-18 Ashadh, 2080 (2-3 July, 2023)
Venue : Directorate of Agricultural Research,
Lumle, Gandaki Province
Organizer
Nepal Agricultural Research Council