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## Mountain Hazelnuts - Post Grafting Update

MHV



Over the course of March and April, Mountain Hazelnuts successfully undertook a major orchard improvement program, where carefully selected varieties, including both production trees and pollenizers, were grafted to increase flowering and pollination for better nut production.

We would like to thank the MoAF and all our domestic partners for the support rendered to make this program a success. We are excited to share the following updates:

The Orchard Conversion Program of grafting new production varieties and the Orchard Optimisation Program of adding in more pollenizer varieties were

successfully completed on 30th April 2022.

In total, 583 acres of hazelnut orchards have undergone orchard conversion, with the cooperation and support of 720 growers. 500 acres was the initial target, but MH expanded the acreage to cover

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more growers who have expressed interest to convert their orchards. The orchard conversion program took place in seven Eastern Dzongkhags (Trashigang, Trashi Yangtse, Pema Gatshel, Mongar, Lhuntse, and Trongsa).

In addition, 250 acres of higher altitude orchards are targeted to be optimized under the orchard optimization program in Trongsa and Bumthang Dzongkhags. At the end of April, 94 acres of higher

altitude orchards had been grafted. The planting of mature pollenizer plants is still ongoing.

### Scionwood Banking Program

Mountain Hazelnuts' scion wood "banking" program is a practice where scion wood for low chill hour varieties and pollenizers are being grafted into scion "banks" so that in future years scion requirements for the grafting program are sourced from within Bhutan. This removes the need

to import scion wood from Georgia and other countries. In total, 37 acres have been grafted as scion banks as of the end of April.

### Dripla Community Group

Dripla Hazy Sonam Detsheun (DHSD) is a group formed by 25 households to revert their fallow land back to agricultural production by planting hazelnut trees along with other agriculture crops. This project is a joint venture between UNDP (GEF-Small Grant Program), Royal Government of Bhutan and Mountain Hazelnuts (MH). This project is expected to revert more than 80 acres of fallow agricultural land back to cultivation, enhance rural livelihoods through income generation and bring multiple environmental benefits including preventing, reducing, and reversing land degradation, reducing carbon emission, increasing biodiversity, and enhancing agro-ecosystem services.

### Key Activities Completed to date:

Brought more than 80 acres of fallow agricultural land under sustainable land management belonging to 27 households (162 female & 50 male);

Completed installing 8.5 km of electric fencing using plastic poles from Greener Way, to prevent wild animal

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damage;

MH co-financed, in kind, about Nu. 3 million in planting 6,800 hazelnut trees (a good mix of production and pollenizer varieties) in 32 acres. The remaining area will be planted this year.

Prior to electric fencing, MH supported with 4,000 m of agronet fencing to the project to protect the seedlings from wild animals;

The group members supported in-kind, in terms of labour & and materials contributions, worth Nu. 2.1 million;

Constructed 1.8 km access farm road from Tsangpo village to Dribla with co-financing of Nu. 0.3 million from Thrimshing Gewog Administration;

To generate additional income, some group members have intercropped wheat, barley and perilla with hazelnut trees in 7

acres; and

MH deputed a full-time technical staff for 10 months at the project site to provide all the technical support to the group members.

Mountain Hazelnuts' Ongoing Priorities

Post-Grafting Care for the grafted orchards, including both individual and orchard fencing.

The signing of revised Grower Agreements with farmers who have participated in the orchard improvement program. All farmers who have participated

have been made aware of the new Grower Agreements, and have confirmed their participation by signing intake forms. The ongoing priority is to get these growers who participated voluntarily to sign the Grower Agreements, (this was not possible earlier in the year due to COVID related travel restrictions at Gewog and Chiwog levels).

Remote carbon due diligence by LDNF is ongoing, and in-country agronomic and operational due diligence by LDNF will be undertaken in mid-June.





## Drum seeding technology promoted as an alternative paddy cultivation technology

AMC, Paro



In an effort to reduce drudgery and cost in paddy cultivation, drum seeding technology is being promoted as an alternative technology from conventional method of paddy cultivation. The pre-germinated seeds which are soaked and incubated for about 24-36 hours are directly sown from the drum-seeder in a well puddled and leveled field. Since it doesn't require paddy nursery raising and transplantation, around 20-30% of labour is saved from seed sowing, nursery raising, uprooting, and transplanting.

Ever since its introduction, around 126 acres of paddy was cultivated using drum seeder. This year too AMC has started promotion of drum seeder and hands on training to new beneficiaries in Chukha covering around 7.3 acres

in collaboration with Chukha Dzongkhag Agriculture Sector and Food Security and Agriculture Productivity Project - FSAPP.

A team shall carry out hands on training to farmers in Sarpang,

Samtse & Samdrupjongkhar in coming days covering around 106 acres of paddy cultivation using drum seeder excluding the ones who received such training shall also continue using the technology due to immense benefits.



# Leisure

## Rice armyworm

### Factors favoring army worm outbreak

- Periods of drought followed by heavy rain.
- The presence of alternate hosts also sustain the development of armyworms.
- Adult armyworms survive better and produce more eggs when the temperature is at 15 °C maximum and when plants are naturally fertilized

### Damage symptoms

- Feed upon leaf tips or along leaf margins
- Feed upon whole leaves leaving only midribs
- Cutting off leaf tips, leaf margins, leaves and even the plants at the base
- Removal of whole leaves and plants.

# JOKES



## The Farmer and the City Slicker

The driver, a young man in a Bryony suit, Gucci shoes, Ray Ban sunglasses and YSL tie, leans out the window and asks the cowboy, "If I tell you exactly how many cows and calves you have in your herd, will you give me a calf?"

The farmer thinks it over, it's a huge herd so he accepts the bet. The city slicker parks his car, whips out his Dell notebook computer, connects it to his cell phone, and surfs to a NASA page on the Internet. From there he feeds the data to another NASA satellite that scans the area in an ultra-high-resolution photo. Within seconds he receives an email and prints the report and finally turns to the farmer and says, 'You have exactly 1,423 cows'.

The farmer is astonished because the city slicker's figure is exactly correct. He says, 'OK, I'm a man of my word, take a cow.' The investment city slicker selects one of the animals and begins to walk away. 'Wait,' yells the farmer, 'Let me have a chance to get even. Double or nothing that I can guess your exact occupation.'

'You are a Congressman for the U.S. Government,' says the farmer. 'Good grief!' splutters the city slicker, 'you are exactly right, tell me, how you deduced that?' 'Easy,' says the farmer, 'give me back my dog, and I will tell you.' 'You showed up here even though nobody called you; you want to get paid for an answer I already knew, to a question I never asked. You tried to show me how much smarter than me you are; and you don't know a thing about cows.'

*Did you know?*

*The armyworm moth lays its eggs in linear masses with the leaf tied around the eggs in a roll on either rice or other grass species in the field.*

**Please submit your articles for RNR-Newsletter at**

*communication@moaf.gov.bt*



## The Ministry's week

### H.E. Ambassador of Argentina and Israel called on Hon'ble Agriculture Minister



H.E. Mr. Hugo Javier Gobbi, Ambassador of Argentina and H.E. Mr Naor Gilon, Ambassador of the State of Israel called on Hon'ble Minister Yeshey Penjor, Ministry of Agriculture and Forests. Their Excellencies discussed possible areas of collaboration particularly in the field of agriculture and livestock sector including technology and mechanization.

H.E. Ambassador of the State of Israel and Hon'ble Agriculture Minister discussed on the future exchange programs which will benefit an individual as well as the governments. They also discussed at length on water technology and the requirement of irrigation mapping for the whole country in order to map the priority and advance from the current water issues and challenges.

### In Gratitude to His Majesty the Fourth King

Bhutan has been exemplary to the global community in terms of protection and conservation of the natural environment. This has not only helped the country built her image as champion of conservation globally but also has ensured our local communities reap the benefits through multiple



ecosystem services and rich natural resources at their doorstep. With protected areas at the core of conservation landscapes and considering the current conservation best practices that Bhutan is following, the positive impacts of conservation shall continue to benefit the country and its people for many generations to come.

### Completion of more than one million fruit tree plantation in three months

The concluding ceremony of the Desuung National Service: Million Fruit Tree plantation in twenty Dzongkhag was held in Bongo Gewog under Chukha Dzongkhag. The ceremony was attended by the Hon'ble Agriculture Minister accompanied by the Member of Parliament, Representatives from De-Suung Office, Director and the Officials from the Department

of Agriculture, local Government leaders, farmers and the Desuups deployed in the field.

The Ministry of Agriculture and Forests in partnership with the De-Suung National Service has embarked on DNS: Million Fruit Tree plantation as a three months project which started from 15th March 2022 and completed the plantation of 1,019,785 number of fruit seedlings.



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