



Early winter chili hits the local markets of Thimphu and Paro continued...

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Early winter chili hits the local markets of Thimphu and Paro

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The shortage of fresh green chili during the winter season especially from December to March is beginning to ease. It has been a major national issue since the import was banned in June 2016.

The early winter fresh, green chili hits the markets in Thimphu and Paro from end of November (24/11/2021) while in Sarpang,

it hits the Dzongkhag's market already from the first week of November. A rapid survey in Jigmechhu and Peeping villages, Chhukha Dzongkhag and the Thimphu Centenary Farmers Market (CFM) revealed positive developments.

The early small Chili in the CFM came from Chhukha, Tsirang

and Dagana. Starting with the produce from Peeping village of Darla appearing in the CFM on 24 November, the CFM has begun selling fresh harvests from Jigmechhu village of Bongo. Fresh green Chili can today be bought from most stalls of the CFM.

Beginning with a modest first

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harvest of 75 Kgs, farmers from Peeping and Jigmechhu have supplied more than 600 Kgs, with 250 Kgs from Jigmechhu and 350 Kgs from Peeping as of 1 December 2021. With the increase in the supply, the farm gate price of Nu 300-400 per Kg and a retail price of Nu.600 per Kg is expected to also ease.

A regular buyer/supplier from Peeping has further facilitated the steady supply of the fresh, green Chili from Lhamoizingkha and Sakhu in Darla.

Considered unachievable until 2020, this breakthrough is a welcome development. Had it not been for advance planning and intense collaboration and coordination between the Department of Agriculture, the Research, the Dzongkhags and the farmers willing to take up winter chili farming, this satisfactory progress would not have been possible.

A comprehensive vegetable sufficiency plan with focus on winter Chili and winter vegetables has been prepared by the Department of Agriculture and the National Centre of Organic Agriculture (NCOA), Yusipang: coordinating Centre for Vegetable Research. Based on this plan, the Extension Officers and the Dzongkhag Agriculture Officers were engaged in planning and virtually trained on the research and technology on early winter Chili cultivation.

NCOA, in addition, supported the farmers of Bongo, Darla, Samphelling and Phuentshogling with seeds; seedlings raised in high altitude farms of both NCOA

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and farmers in Genekha; plastic mulches; tunnel plastics and irrigation pipes. NCOA and the farmers remain grateful for the funding support from the World Food Programme and the World Bank funded Food Security and Agriculture Productivity Project (FSAPP).

A technical challenge was the production of ready-to-transplant healthy seedlings. When sown

during the months of July and August, the Chili seedlings were affected by damping-off disease, winter chill and cold temperatures in the low-altitude areas.

This challenge has now been overcome. We have proven early nursery seedlings can be raised on high nursery beds under protected condition. For the first harvest of winter chili by the end of November, the nursery across

the major winter Chili growing Dzongkhags must be sown from June to July. For example, the sowing for early winter Chili nursery in Chhukha Dzongkhag started from the last week of July. The nursery can be sown until September for a staggered planting.

A second alternative that was successfully tested was the raising of disease-free seedlings in the high-altitude areas. The ready-to-transplant disease-free seedlings were then purchased by the Chili farmers in the low-altitude areas. The option has resulted in the early supply of fresh, green, small Chili to the CFM in Thimphu and at a premium price. The unintended positive benefit of this win-win option has been the farmer-to-farmer cooperation.

Notwithstanding the satisfactory progress, the steady supply of adequate quantity of fresh, green



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chili that will meet the rising demand remains the major challenge. The total domestic production is not sufficient because of low yield, cultivation in limited areas and not all farmers have taken up winter chili production due to already limited areas which is aggravated by inadequate supply of water for irrigation.

Farmers are unable to allocate more land for chili cultivation as chili is still not a priority crop compared to cardamom or areca nut in the low-altitude farms. The inadequate supply will not match the steep rise in demand when the construction sector resumes and/or the tourism sector opens up.

While the land issues can be addressed by the Local Governments, the technicalities will require more rigorous education and awareness along the entire Chili value-chain. Some of the significant technical challenges faced by the farmers included: (1) inadequate skills in raising winter chili nursery and production to all, (2) emergence of new pests (mite) and diseases (shoot yellowing and virus), and (3) cold stress from mid-December to mid-January affecting plant growth and production.

Finally, the Department and the Research Centers are making conscious and concerted efforts to increase production through the introduction of early and cold resistant varieties and by promoting protected cultivation.

The research is well-equipped to address these technical challenges.





Leisure

Chili seed maintenance

1. The seeds from hybrid varieties cannot be reused again.
2. The open pollinated varieties can be used to keep seeds.
3. The seed fields should be isolated from the fields of the other varieties by 400 and 200 m in case of chilies for foundation and certified seed production respectively to prevent cross pollination.
4. Removal of off type plants has to be followed during various stages of plant growth.
5. A minimum of 3 field inspection are required for these crops.
6. True to type fruits, depending upon shape, size, colour, free from disease and pest are kept for seed extraction.
7. Harvest the fruits at red ripe stage. The fruits are either dried, crushed and the seed is separated by winnowing or the seed is extracted manually from the freshly harvested fruits.

JOKES



A farmer purchases an old, run-down, abandoned farm with plans to turn it into a thriving enterprise

The fields are grown over with weeds, the farmhouse is falling apart, and the fences are collapsing all around.

During his first day of work, the town preacher stops by to bless the man's work, saying, "May you and God work together to make this the farm of your dreams!"

A few months later, the preacher stops by again to call on the farmer. Lo and behold, it's like a completely different place – the farm house is completely rebuilt and in excellent condition, there is plenty of cattle and other livestock happily munching on feed in well-fenced pens, and the fields are filled with crops planted in neat rows.

"Amazing!" the preacher says. "Look what God and you have accomplished together!"

"Yes, reverend," says the farmer, "but remember what the farm was like when God was working it alone!"

Did you know?

While capsicum may burn and irritate the flesh of mammals, birds are completely immune to its effects. Unexpectedly, birds are actually the largely responsible for helping wild peppers spread by eating them and excreting the seeds.

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FAO Country Representative called on Sanam Lyonpo



The FAO Country Representative for Bhutan and Nepal, Mr. Ken Shimizu called on the Hon'ble Sanam Lyonpo, Yeshey Penjor on 3rd December.

During the meeting, Lyonpo acknowledged the FAO's significant contribution to the RNR Sector. The meeting explored the possible FAO support in terms of enhancing market infrastructure, capacity building and statistics.

The meeting also discussed the

RNR challenges in achieving self-sufficiency, digitalisation of agriculture and the FAO's Hand-in-Hand initiative to accelerate the agricultural transformation and sustainable rural development.

The FAO Representative is in the country from November 8 to December 6. During his stay, he also met with the Hon'ble Agriculture Secretary and Heads under the Ministry as well as visited the agriculture research centres at Yusipang and Bajo.

First-ever Quinoa processing plant launched

The first-ever Quinoa processing plant was launched in Phuentsholing to supply well-packaged Quinoa to the market and to the school feeding programme. The Food Corporation of Bhutan (FCBL) set up the plant with fund support of Nu.3.4 million from the Department of Trade.



The plant can process 500 kgs of Quinoa per hour improving the quality of final products which will come in a packet of 1 kg. Quinoa often called as I 'Superfood' is one of the world's popular foods.

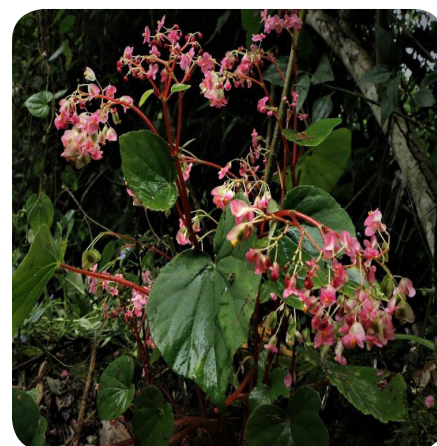
It is gluten-free, rich in protein and one of the few plant foods that contain sufficient amounts of all nine essential amino acids.

Bhutan discovered new Begonia species

A Begonia species, new to the world was discovered after investigation of an old herbarium specimens at the Royal Botanic Garden Edinburgh. The species was discovered from Zhemgang by Phub Gyeltshen, a Forest Science student at College of Natural Resources; Mark Hughes, Begonia expert, Royal Botanic Garden Edinburgh and Sherab Jamtsho, a Ranger at Zhemgang

Forest Division. The first author also added *Begonia flaviflora*, *Begonia panchtharensis* and *Begonia gemmipara* species which are new records for Bhutan in 2021.

The new species is named as *Begonia bhutanensis* which is derived from the country of its origin. It is currently known only from Zhemgang Dzongkhag.



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