



# CSIR Floriculture Mission in Ladakh



Agriculture in Ladakh faced unique challenges and opportunities due to its high-altitude desert climate and geographical isolation. The growing season is short, and the region experiences harsh winters, making it challenging for traditional agriculture. Farmers cultivated crops like barley, wheat, peas, mustard, and a few fruits like apples and apricots. In recent times, there has been a shift towards cash crops like vegetables and floriculture, as they offer better economic returns than traditional crops. In India, CSIR-Institute of Himalayan Bio-resource Technology (CSIR-IHBT) has been in the forefront of developing floriculture sector in the country. Under CSIR Floriculture Mission, the institute came across that the geographical and climatic conditions in both the Leh and Kargil districts of Ladakh are suitable for off-season ornamental bulbous flowers like gladiolus, liliium and tulips.

With the help of line departments like Directorate of Industries and Commerce, Department of Agriculture and Cooperative society, Ladakh; the institute laid first demonstration plots of liliium in four villages i.e. Ranbirpur, Stakna, Sankar, and Tukcha of Leh district and three villages i.e. Kargil, Sankoo, and Kurbathang of Kargil district, in Leh, Ladakh (UT) in May, 2021. The crop performed good in respect to spike length, number of florets and bulb production.



Lilium and gladiolus supplied to Leh and Kargil during 2021-23



Lilium (three villages i.e. Kargil, Sankoo, and Kurbathang of Kargil district and four villages i.e. Ranbirpur, Stakna, Sankar, and Tukcha of Leh district, Ladakh)



Training programs organized at Leh and Lahaul during 2021-23

Table 1. Details of training programs organized at Ladakh during 2021-23

Description of training programs	Date	Place	Number of farmers
A webinar on "Potential of Floriculture and Aromatic Plants in Ladakh" is jointly organised by CSIR-IHBT and Industries and Commerce Department, Union Territory of Ladakh	5 May 2021	Online (Leh & Kargil)	80
One day awareness cum training program on agro and post-harvest management technology of floriculture crops	07.08.2021	Leh	70
Training to Ladakh farmers' at Lahual, H.P.	23.08.2021	Lahaul, HP	25
Practical demonstration for Agrotechnology and post-harvest management of liliun flowers	08.08.2021	Leh	25
Awareness cum training programme on cultivation of floriculture crops	19.04.2022	Leh	30
Awareness cum training programme on cultivation of floriculture crops	20.04.2022	Kargil	25
Advisory visit to floriculture farmers field	17.05.2023	Leh	15
Visit to floriculture farmers field	23-24.07.2023	Kargil & Drass	20
Visit to floriculture farmers field	25-26.07.2023	Leh	20
<b>Total</b>			<b>310</b>

Next year in 2022, the institute supplied a good quality of bulbs to the farmers group like self-help group in Leh and Rangyul Ladakh Organic Farmers' Society, Kargil with trainings on its cultivation, post-harvest handling and packaging. In August, 2022, farmers from Leh and Kargil could able to sell their produce to Delhi flower market through air-flight. The farmers are also selling the liliun flowers in local market of Leh, Kargil and Srinagar (J&K). Some entrepreneurs also open the flower shop in Leh and Kargil.



Awareness cum training programme on cultivation of floriculture crops, Leh and Kargil on 19-20.04.2022



Under CSIR Floriculture Mission, for the first time, Lilium flowers were transported by cargo flight from Leh and Kargil to Delhi flower market in August, 2022



First flower shop in Leh, Ladakh

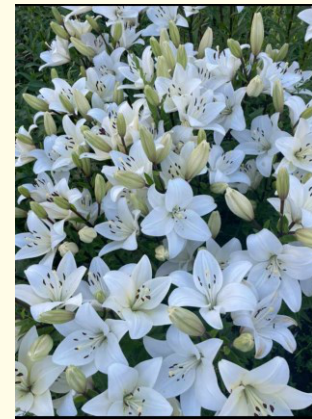
Women self-help group selling Lilium flowers at Leh and Kargil market

Table 2. Details of planting material supplied to Ladakh farmers during 2021-23

Crop	Planting material (Nos.)	Total area achieved (Acre)	No. of farmers
Lilium	2,61,000	3.28	120
Gladiolus	4,70,000	6.00	30
Tulip	17,000	0.26	12
<b>Total</b>	<b>7,48,000</b>	<b>9.54</b>	<b>162</b>



Farmers from Rangyul Ladakh Organic Farmers' Society, Kargil, Ladakh (UT) harvesting and packaging Lilium flowers to be send from Kargil to Srinagar (J&K) and Delhi flower market



Sale of lilium flowers in Kargil market



Lilium farmers from Women Self Help Group, Leh, Ladakh (UT)



Mr. Rigzin tsewang, a floriculture entrepreneur from Leh, Ladakh expresses his views on CSIR-Floriculture mission activities being carried out by CSIR-IHBT and getting “Technology Adoption Award”



A delegation led by Dr. Mahendra Darokar, Chief Scientist at CSIR Headquarters in New Delhi, along with local entrepreneurs, called on the Hon’ble Lt Governor, Brig (Dr) BD Mishra (18-05-2023)

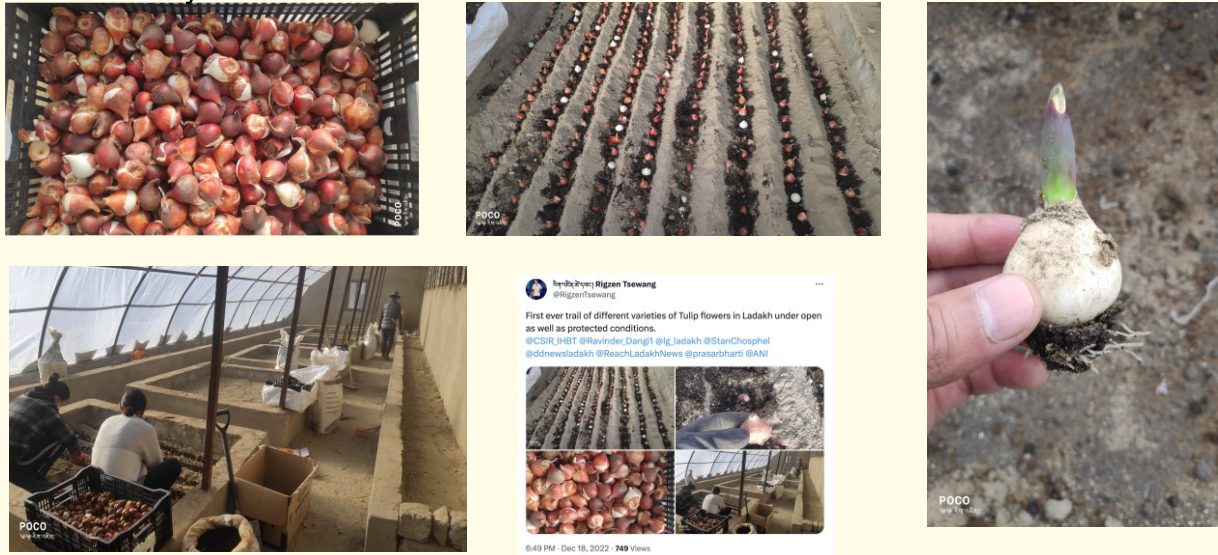


Visiting lily farmers field at villages in Leh (17-05-2023)

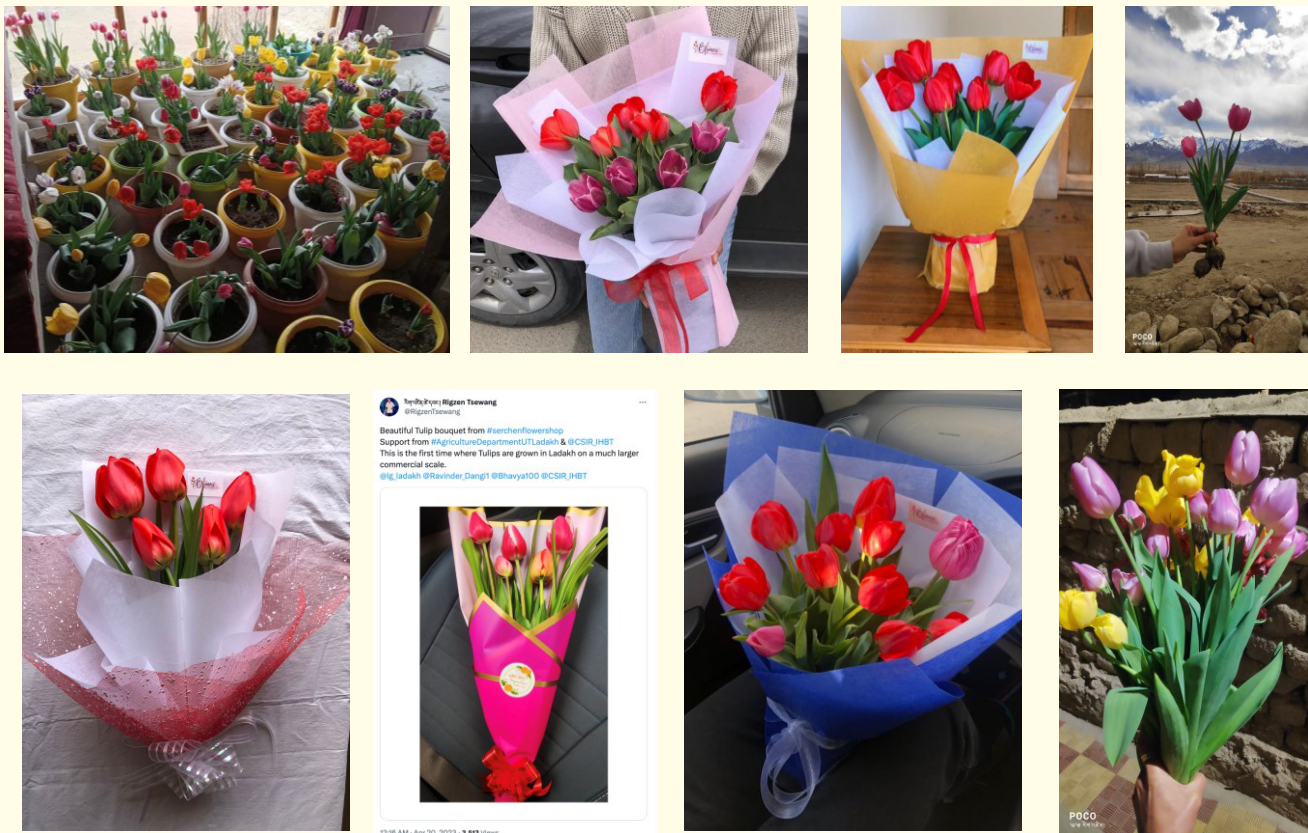


Gladiolus farmers field at villages in Leh and Kargil

By analysing the success of Lilium and Gladiolus crops in respect to flower and bulb production in Leh and Kargil, the institute supplies the 15,000 good quality Tulip bulbs to farmers in Leh to be planted in both open and polyhouse conditions during November 2022. The crop performed good in protected cultivation and farmers could able to sale Tulip flower bouquets in Leh market during April-May, 2023. Further, the sustainable cultivation bulbous of flower crops, the region can be developed as bulb production centre of the country.



First Tulip trials at farmers field in Leh (2022-23)



Tulip bouquets sold in the market at Leh (2023)

