



CSIR - Institute of Himalayan Bioresource Technology

Ultimate Destination for Research on Bioresources

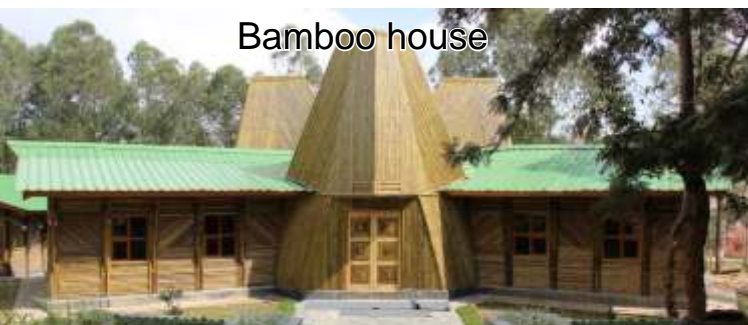
Auditorium & Library



SUPPORT FACILITIES

- Arboretum
- Fernery
- Bamboo treatment /charcoal making plants
- ICT- Institute has internally hosted web server, E-mail server and DNS server. It is linked under NKN with gigabyte connectivity and has campus wide Wi-fi connectivity (24x7).
- Library- books, journals, databases, access to over 2000 online journals under network mode
- Studio- high end camera for still photography, video camera, sound recording system and processing systems for making short documentaries.
- Liquid Nitrogen Plant
- Auditorium
- Training Block with virtual classroom
- Guest house
- Hostel

Bamboo house



Guest house



CSIR-CeHAB Demonstration Plots



Pre-fabricated structures



Center for High Altitude Biology, Ribling (Lahaul & Spiti), Himachal Pradesh

Functions:

- Conservatory of high altitude plants
- Bioprospection
- Extension and training

MISSION

Providing R&D services on economic bioresources in western Himalayan region leading to value added plants, products and processes for industrial, societal and environmental benefits



RESEARCH

Institute has state-of-the art laboratories:

- Third generation sequencing system PacBio RSII and Illumina Genome Analyzer IIx,
- Proteomic facility with MALDI-ToF and MALDI ToF-ToF,
- Bioinformatics facility with high end workstations, servers, Linux cluster for parallel computing algorithms and distributed computing,
- Range of microscopes including Confocal, Laser Assisted Dissecting, Hi-end Stereozoom and Micromanipulator, Scanning Electron, Transmission Electron and Atomic Force Microscopes,
- Tissue and cell culture facility with cold culture rooms and bioreactors
- Biolistic gun and transgenic containment facility,
- Facilities for virus indexing, heavy metal toxicity testing and pesticide residue analysis,
- Analytical facility with HPLCs, Head space, Super Critical Extraction, GC,GC-MS, LC MS-MS, NMR- 300 Mhz and 600 Mhz,
- Research facilities for studying adaptation biology - meteorological tower, FACE, FATI tunnel and environmentally controlled walk-in Plant Growth Chambers,
- GIS, Remote Sensing and Mapping facility,
- Food Processing Unit,
- Farms and polyhouses for domestication and development of agrotechnologies of ornamentals, aromatic and medicinal plants and high value crops,
- Pilot plants for processing of herbals, nutraceuticals, tea, natural colours and extraction of essential oils,
- Mobile Distillation Unit.



CPCSEA approved animal house: for testing of bioactive compounds and toxicity of products and molecules

IHBT CATERS TO

Food/Nutraceuticals: Tea concentrates, tea & tea based wines, steviol glycosides, flavours, dietary fiber, bamboo candies, antioxidants and SOD

Fragrances/Flavours/Essential oils/Health: Aescin, dihydrotagetone, beta-asarone, bioactive molecules, natural vanillin, colours and dyes

Biotech: Genes, recombinant enzymes, RNA isolation solution iRIS™, tissue culture protocols for bamboo, rose, stevia, saffron, orchids, tea, lilies, apples, potatoes, etc.

Inventions: Tea withering machine; tea plucking machine; mini laminar flow, STERIFLOW™; gel transfer device, GEPROTED™; rooting vessel and mini distillation unit, HERBOSTILL™

Farmers: Damask rose, gladiolus, tagetes, *Valeriana jatamansi*, *Curcuma aromatica*, *Hedychium spicatum*, tea, stevia, gerbera, rose, thornless rose, elite rose root stocks, edible bamboos, ornamentals, medicinal & aromatic plants, biofertilizers, biocontrol agents, biopesticides and viral diagnostic kits.