<Address>

OKansai Regional Breeding Office : 1043 Uetsukinaka, Sho-oh, Katsuta, Okayama
TEL 0868-38-5138 FAX 0868-38-5139
Access : 3.7km north from Katsumata Sta. on the JR West Kishin line (10 min. by taxi)
2.5km north from Chugoku-Katsumata bus stop on the Chugoku Highway Bus (8 min. by taxi)

OSan'in Breeding Stock Garden : 406 Honomi, Chizu, Yazu, Tottori

OShikoku Breeding Stock Garden : 417-1 Kuzume, Tosa-Yamada, Kami, Kochi
TEL 0887-43-2471 FAX 0887-53-2653
Access : 2.2km east from Tosa-Yamada Sta. on the JR Shikoku West Dosan line (6 min. by taxi)

<History>

Apr. 1958 Kansai Forest Tree Breeding Station (KFTBS) was established as part of the Forest Experiment Station in the Ministry of Agriculture and Forestry.
Apr. 1959 KFTBS became affiliated to the Forestry Agency. KFTBS San'in Branch Office was created.
Apr. 1960 KFTBS Shikoku Branch Office was created.
Apr. 1978 Breeding Laboratory was created in KFTBS.
Oct. 1991 KFTBS and other national breeding stations were unified as Forest Tree Breeding Center (FTBC). KFTBS was renamed as Kansai Regional Breeding Office (KRBO).
Apr. 2001 FTBC KRBO became an incorporated administrative agency. San'in and Shikoku Branch Offices were reorganized as Breeding Stock Gardens.
Apr. 2007 FTBC KRBO became affiliated to the Forestry and Forest Products Research Institute (FFPRI).
Apr. 2015 FFPRI FTBC KRBO became a national research and development agency.
Apr. 2017 FFPRI FTBC KRBO was reorganized into the Forestry Research and Management Organization.

<Our Work>

Our primary mission is to create and diffuse superior seedlings of trees for forestry. To achieve the goal, we develop varieties with better growth, wood quality, resistance and other traits. In addition, we collect and preserve genetic resources of forest trees to be used for the breeding. We also promote diffusion of our varieties through distribution of foundation stock and technical training for production of seeds, seedlings, etc., to people engaged in forestry.

<Coverage Territory >

OKansai Breeding Region: 19 prefectures (15 pref. in Hokuriku, Kinki, Chugoku and 4 pref. in Shikoku)
O6 Breeding Districts: East Japan Sea Coast, West Japan Sea Coast, Kinki, Seto Inland Sea, North Shikoku, South Shikoku
OForest Area: 678 mil. ha (65 mil. ha is national, 613 mil. ha is non-national), 27% of total forest in Japan

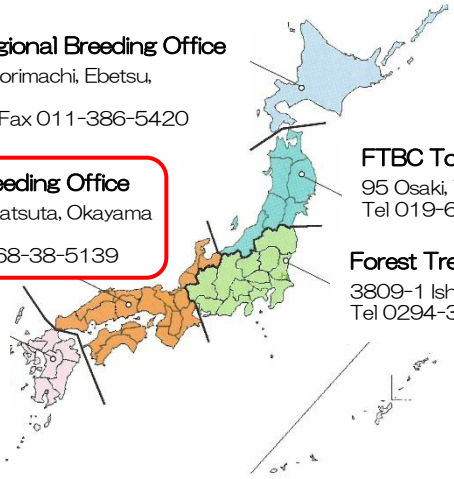
FTBC Hokkaido Regional Breeding Office
561-1 Bunkyodai-midorimachi, Ebetsu,
Hokkaido 069-0836
Tel 011-386-5087　Fax 011-386-5420

FTBC Kansai Regional Breeding Office
1043 Uetsukinaka, Sho-oh, Katsuta, Okayama
709-4335
Tel 0868-38-5138　Fax 0868-38-5139

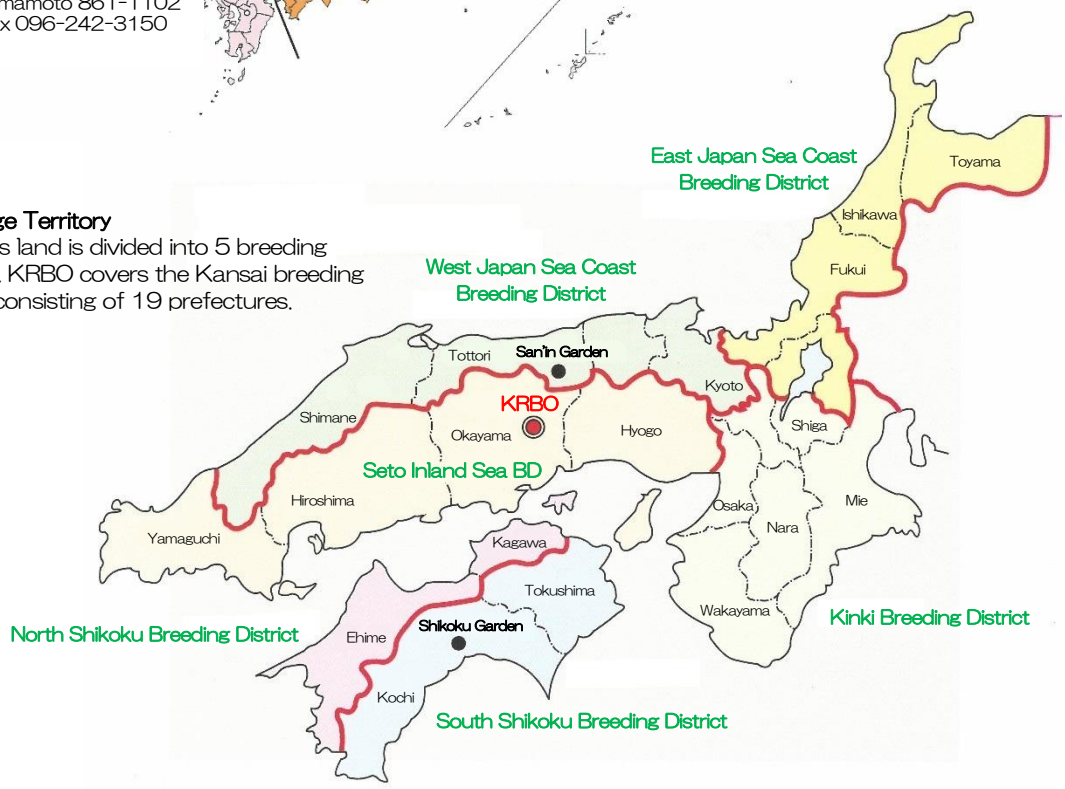
FTBC Tohoku Regional Breeding Office
95 Osaki, Takizawa, Iwate 020-0621
Tel 019-688-4518　Fax 019-694-1715

Forest Tree Breeding Center
3809-1 Ishi, Juo, Hitachi, Ibaraki 319-1301
Tel 0294-39-7000　Fax 0294-39-7306

FTBC Kyusyu Regional Breeding Office
2320-5 Suya, Koshi, Kumamoto 861-1102
Tel 096-242-3151　Fax 096-242-3150



■Coverage Territory
Japan's land is divided into 5 breeding regions. KRBO covers the Kansai breeding region consisting of 19 prefectures.



<Organization>

Director General

OLiaison and Coordination Division
- Planning, communication and coordination with relevant organizations for breeding projects
- Management of the office, accounting and other general affairs

OBreeding Division/Breeding Laboratory
- Research on breeding and propagation of forest trees
- Research and exploration of forest tree genetic resources

OGenetic Resources Management Division/San'in and Shikoku Breeding Stock Gardens
- Collection, propagation and preservation of forest tree genetic resources
- Production and distribution of developed varieties and seedlings to be preserved
- Establishment and management of tree banks and seed/scion orchards
  - Management of San'in/Shikoku Stock Gardens, conservation gardens, crossing gardens, foundation stock gardens, examination gardens, etc.

OBreeding Technical Officer
- Training for techniques concerning forest tree breeding

<Development of Superior Varieties>

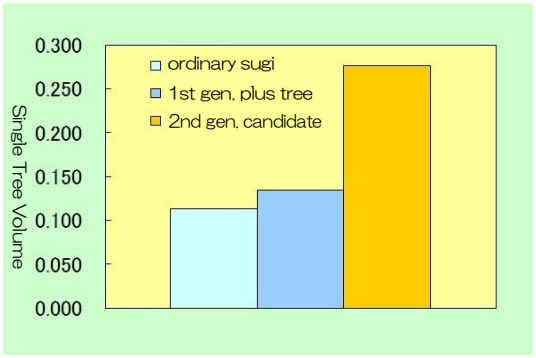
Many seedlings of sugi (Japanese cedar) and hinoki (Japanese cypress) currently used are produced from seeds of the first-generation plus trees, which are those trees with superior traits as growth rate. For further improvement of the seedlings, KRBO is selecting and conserving plus trees of advanced generation from the second-generation plus trees in collaboration with relevant organizations.

(Specified Mother Tree (SMT))

The Act on Special Measures concerning Advancement of Implementation of Forest Thinning, etc. (revised in May 2013 and extended in April 2021) stipulates that the Minister of Agriculture, Forestry and Fisheries designates varieties of sugi and hinoki which show particularly outstanding traits as growth and produce about less than half of pollens than ordinary ones as "Specified Mother Trees" and promotes their diffusion. In accordance with the law, KRBO applies for registration of our varieties that meet the criteria and distributes the foundation stock of specified mother trees to prefectures and other entities*. So far, 56 varieties of sugi and 41 varieties of hinoki developed at KRBO are designated as SMTs.

* "Entities" refers to the proprietors that are licensed by prefectures according to the Forest Thinning etc. Act (revision in 2013).

A candidate hinoki for 2nd generation



Comparison of single tree volumes among ordinary sugi, 1st-generation plus trees and candidates for 2nd-generation plus trees

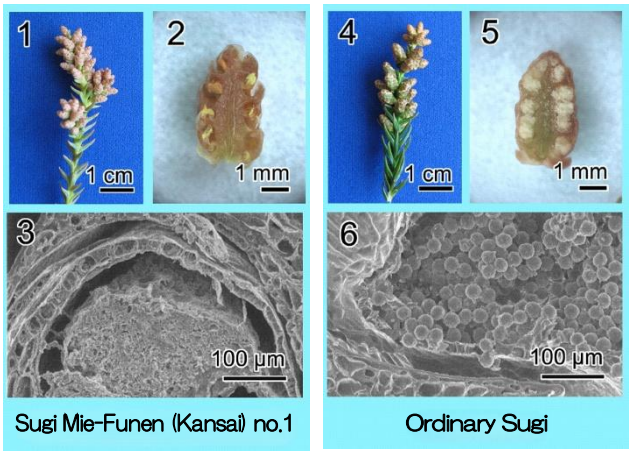
SMT of sugi

SMT of hinoki

(Less-Pollen and Pollen-Free Varieties)

KRBO is developing less-pollen (bearing no observable male flower or only a few of them) varieties of sugi and hinoki from plus trees in collaboration with prefectures. Moreover, we found a variety of sugi which bears male flowers but produces no pollen and registered it as "Sugi Mie-Funen (Kansai) no.1" in 2007. We are currently proceeding with the development of better pollen-free varieties by artificial crossing of the "Mie-Funen" with plus trees. By 2025, we have developed five more varieties, bringing the total number of pollen-free varieties to six.

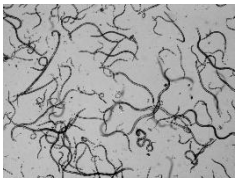
Less-pollen variety of sugi　　Ordinary sugi

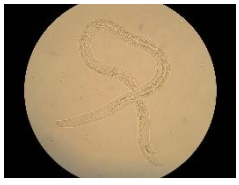


Close-ups of male flowers (1, 4)
Stereomicroscopic photos of dissected anthers (2, 5)
Electron micrographs of dissected anthers (3, 6)

(PWN (Pine Wood Nematode) Resistant Varieties)

Pine wood nematodes are 1 mm-long eelworms that cause pine wilt disease when brought into pines by a certain kind of longhorn beetles. KRBO is developing PWN resistant varieties of Japanese red pine and Japanese black pine in collaboration with prefectures.





Pine wood nematodes

(Other Varieties)

In addition to the varieties mentioned above, we are developing those of sugi and hinoki with high carbon fixation ability, those of sugi that grow rapidly at early stage and those of sugi with superior wood quality.

<Collection and Preservation of Forest Tree Genetic Resources>

(Forest Tree Gene Bank Program)

In order to maintain and hand down the diverse forest resources to future generations, as well as to make use of them for breeding, KRBO collects and preserves valuable genetic resources of trees such as those designated as natural treasures, endangered tree species and giant trees. We also distribute the resources for research use.

("Emergency Call for Tree Gene Bank" Service)

As part of the Forest Tree Gene Bank Program, we grow progeny seedlings of valuable trees in decline upon requests from their owners. The seedlings are propagated clonally and returned to their original sites. This service has been continuing since 2003.

Collecting scions from a chinaberry tree

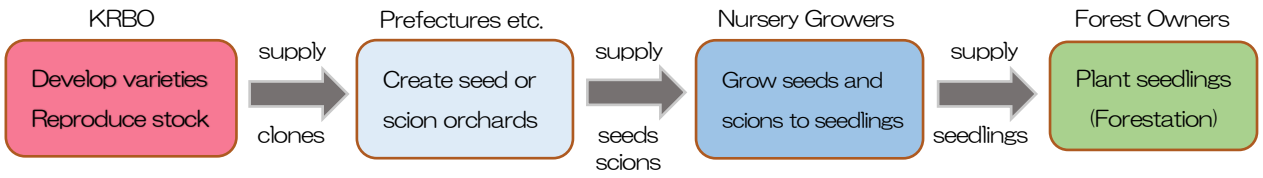
Grafting a gingko tree

Returning progeny seedlings of the "Maple of Kyorinbo Temple" (Oct. 30, 2023 in Shiga)

<Diffusion of Superior Varieties>

(Distribution of Foundation Stock)

Clones of the varieties (including specified mother trees) developed at KRBO are preserved as foundation stock on our premises. Upon requests for distribution from prefectures and other entities in the Kansai region, we propagate clonal seedlings from scions collected from the stock. Distributed seedlings are used to establish seed or scion orchards. Seeds and scions produced in these orchards are raised to seedlings by private nursery growers, then supplied to forest owners.



Foundation stock garden of sugi at KRBO

Foundation stock garden of sugi at Shikoku Garden

Sugi seedling for distribution

<Technical Training for Production of Seeds, Scions and Seedlings>

To promote the use of our varieties, KRBO offers technical lectures and on-the-spot training to people dealing with bred varieties. The training involves techniques to produce seeds, scions, seedlings, etc.

Lecture on grafting of hinoki

Training on pruning management of hinoki seed orchard

(Apr. 2026)