

Greening system to tackle the 2 great global environmental problems

Nakada Seeds & Nursery, Ltd.



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The inspection of Korean landscape society

50 years of growing indigenous plants exclusively

Shigeru Nakada, present chairperson, and his wife Masako founded Nakada Seeds & Nursery in 1959 and celebrated their 50th anniversary in 2009. Although they started as a forestry nursery, the nursery has developed, produced and sold indigenous trees as greening material since the 1960's.

Their cutting propagation of pieris and wild azalea was put to practical use ahead of the industry. The company was awarded the 'Japan Greenery Research and Development Center's Chairperson's Award' in the Japan Nurserymen's Association's business contest (1984) and 'Rinyachou-choukansho (Director General of Forestry Agency Award) (1995).

Masako has been collecting and propagating indigenous wildflower seeds for over 30 years, and the species count amounts to nearly 80 at present. As some Japanese primula that are extinct in their natural habitat are in the collection, it also functions as a precious seed-bank of the area. Our plant-turf makes use of this seed-bank.

The policy of the founder to 'commercialize the best ones from among the indigenous plants' still continues to the present day.





Shigeji Nakada (Bangalore, South India)



The green roof has been the Japan culture since of the Jomon period

+Culture

The company president, Shigeji Nakada, has communed with the satoyama (mountain-area in the vicinity of a village) near his parent's house since he was little. The development of the floral (vegetation) mat has its genesis in the formative experiences of that time.

He learned archeology at Doshisha University from Professor Koichi Mori who stated that 'Archaeology gives courage to the local region'. Until his mid 30's, he worked as a curator at the Museum of History and Folklore of Miharu-cho, Fukushima, and studied local history from primitive ancient times to modern times. He participated in research teams from Waseda University's Institute of Egyptology twice, in 1987 and 1988, and visited numerous landscape heritage sites while enjoying Prof. Sakuji Yoshimura's favor.

He changed careers in 1994 to inherit the family business. After a time, he entered the graduate school of Tokyo University of Agriculture and studied landscape history and basic landscape theory under Prof. Isoya Shinji, the university president. He became deeply impressed by Prof. Shinji's thoughts on the rural landscape making the most of local assets.

Although we produce plants and belong to the horticultural industry, we believe that adding additional cultural values is Nakada's distinctive quality and role. The three important elements of an area's identity are the natural environment, historical culture, and local businesses (making use of local assets), and we are running an environmental business linking those. Our business model has been recognized in many places, including "Ohayo Nippon (Good Morning Japan)" NHK, nationwide broadcast 'Business making use of the plants in the village-vicinity mountains' (2003); Eco Japan Cup 2009 (Held by the Ministry of the Environment among others), 'JP Local Co-existence Business Prize' from the Japan Post Group; and 'The Minister of the Environment Prize in the Social Business Division from the Low-Carbon Cup 2012.



Floral Mat

Floral Mat

The floral mat is a greening system that uses our own patent holding technique to plant local indigenous plants and finish it like turf.

‘Floral’ here means Japanese or local indigenous plants, and the butterflies come flying for the wildflowers followed by dragonflies and birds chasing them in turn.

By reviving the original local vegetation, the biodiversity base will be brought back to life.

The gathering of seeds for mat production conforms to the ‘National land division for protecting biodiversity’ (Ministry of the Environment) keeping clear records and making up seed-banks for each area. The completed mat goes through trademark registration and distribution to each area. Mats for other region have also been developed: Nonohana (wildflower) mat for the third region, Hamakko (beach kids) turf for the 6th region and an original mat for Ise Shrine.



Ise Mat

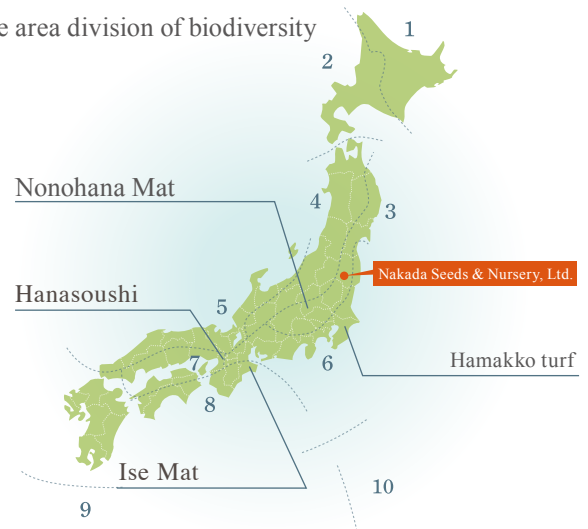


Nonohana Mat



Hamakko turf

The area division of biodiversity





Michio Taze & Shigeru Nakada

Aze Turf (Turf replicating vegetation on a ridge between rice paddies) —Meeting Michio Taze—

Meeting Michio Taze, the landscape architect of Aquamarine Fukushima, in 1999 was the impetus to develop the Floral Mat. The Aze Turf, a floral mat named by Taze, replicates rich vegetation like the ridges between rice paddies.

We value the indigenous species above all. The development of the Aze Turf began in autumn 2001, as an empathetic response to Taze's idea that Aze turf would improve urban environments and that its production would contribute to the protection of village-vicinity mountains and regional revitalization.

The enhancements towards complete cultivation took the following steps: at first, transplanting natural vegetation, next, half-cultivation using fallow rice paddies, then finally using our 50 years of seeding and raising seedling techniques, 'seeding and group planting'. In 2003, the seeding and group planting techniques were complete. The patent was registered in 2009 (Patent No. 4383971).





The new library at the Tokyo Institute of Technology(2011)



The Meguro Tenku Teien(garden)
at the Oohashi junction on the Metropolitan Expressway (2011)



Station plaza
at Musashi Koganei station (2011)



Sony Building(2011)



ThinkPark(2007)



Nonohana Mat (Wildflower mat) —Restoring urban biodiversity—

The Nonohana Mat is inspired by the beauty of the four seasons in Musashino. The difference with Aze Turf is the lack of grasses and the high ratio of wildflowers. Tatsuya Hiraga, who designed ‘ThinkPark,’ advised on the development of this product.

The effectiveness of Aze Turf and Nonohana Mat for global warming prevention has been acknowledged by university researchers, among others. The Aomori Broadcasting Corporation’s program, ‘Newton’s Apple,’ featured the Nonohana Mat as an effective item for heat island prevention in 2009.

Wildlife gathers around wildflowers achieving results in the restoration of urban biodiversity.

The ThinkPark at the World Trade Center Building site completed in 2007 was selected for the ‘Best 100 corporation greenery leading to biodiversity’ in the industrial site division.

Featured in the Yomiuri Shinbun, a nationwide newspaper, as ‘Eco life wildflower revival mat’ and on ‘Wildflower and biodiversity’ by NHK Fukushima.

With dedicated co-operation from Landscape +, Co. Ltd, who designed the landscape of the new library at the Tokyo Institute of Technology, the relationship between the ‘Nonohana Mat’ and biodiversity was evaluated. As a part of the cooperation between agriculture, commerce and technology businesses initiative (Ministry of Economy, Trade and Industry in co-operation with the Ministry of Agriculture, Forestry and Fisheries), a request was put to Masatoshi Takeuchi, entomologist and Associate Professor in the Green Environment department of the Tokyo University of Agriculture and Kazuhiro Iijima, a part time lecturer. As a result, numerous butterflies such as the copper, pale grass blue, and *Argyreus hyperbius* and other flower visiting insects were confirmed, and the Nonohana Mat was academically proved to be effective for the restoration of biodiversity.



Greening system with original mats

—Outer Shrine of Ise-jingu Shrine • Shikinen Sengu, Sengu Hall—

2013 is the year of the removal of the Grand Shrine of Ise-jingu to a new shrine building, which occurs once every 20 years. In conjunction with that project, the Outer Shrine of Ise-jingu constructed the Sengu Hall, a new information center, and our floral mat was used for the ridges around the iris pond in front of the building.

Under the instructions of the design office, Place Media Inc. Limited, we received the commission for a greening system from a site survey on vegetation to the production of the floral mat. All the plants were collected from the R. Miyagawa basin which belongs to the Outer Shrine, and the goods were delivered as an original 'Indigenous plants turf'. The implementation period was around 18 months.

1 Research

On-site : April 2010

Site survey on vegetation and ecosystem.

With special permission from the shrine, a site survey on the vegetation and ecosystem was undertaken with the designer and client (Taisei Corp.) in sacred areas where the general public has no access. *Amsonia elliptica*, an endangered species, and suchlike were growing in the wetland and the variety of insects and birds was great. It was recognized that an untouched, rich nature remained.



計画地での現地調査



カラスアゲハ



カタツムリ(南方系)

2 Planning

On-site • Office : April ~ May 2010

Designing the plant species to be introduced.

Based on the vegetation survey in the sacred area, the mixture of plant species to be introduced was planned with advice from the design office. The characteristics of the shrine (naturally growing in the sacred area), passing of the four seasons, and the environment of the construction site were consideration points.



フユイチゴ



カリガネソウ



アケボノソウ



ミストランオ



チョウジソウ



マツカゼソウ

3 Seed-gathering

On-site : April ~ December 2010

Collecting from the R. Miyagawa basin.

The R. Miyagawa is 91km long and is known as the clearest stream in Japan. Abundant vegetation still remains around the basin. With the help of Usui-Juen (Tsu City), a landscape contractor who knows the place well, plants were collected with permission of the landowner.



計画地流域

4 Production

Yabuki Farm, Fukushima : September 2010 ~ September 2011

From seeding to producing mats.

The seeds collected from the R. Miyagawa basin were finished off as an original vegetation mat applying our seeding and group planting techniques for trees and wildflowers.



プロジェクト専用ライン



「伊勢マット」生物多様性保全のための国土区分第8区に沿ったフローラルマット
カリガネソウ、フユイチゴ、チョウジソウなど、地域性を表す野草を導入

5 Planting

On-site : September 2011

Planting.

The original mat for Ise-jingu was planted similar to laying turf.

They were planted by Usui-Juen, who had been involved from the time of collecting the seeds. The turf was laid in a way implying a feeling of ‘welcome home’.



The original mats of Ise-jingu Shrine

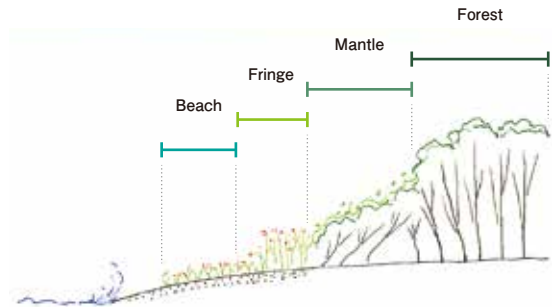
※At Ise-jingu shrine, we provisionally carried out production in our nursery in Fukushima prefecture; however in future, production in an environment close to the planned site is being considered, in association with nurserymen in western Japan.



Hamakko turf —Coastal vegetation mat—

●Survived the Tsunami

Hamakko turf is a gathering of salt-tolerant plants. A huge tsunami struck Aquamarine Fukushima on the 11th of March 2011. The ‘Eggu-no-mori’ where Hamakko turf was planted was also covered in seawater. However, there was little loss and over 90% was viable. It was fortunate that the water from the tsunami receded relatively quickly, however it proved that the Hamakko turf is strong and suitable for coastal sites. TV Fukushima reported it as the ‘Hamakko turf that survived the tsunami’ in December 2012.



●Egg-no-Mori

We designed and constructed the ‘Egg-no-Mori’ which was completed in 2010. We enjoyed various challenges like the full-scale introduction of the Hamakko turf with Jun Yasuda, the manager in charge of environmental displays at the aquarium. As a premise of the challenge, we carefully undertook a site survey on vegetation from the Iwaki region to Ibaragi and the Boso peninsula.

On taking a close look at Okinoshima off Tateyama-shi, Chiba and other areas, moving from the sea to the woods the model coastal vegetation shows the functions of ‘sandy beach vegetation,’ ‘fringe vegetation,’ ‘mantle vegetation,’ and ‘forest’. Products for each function were developed for ‘Egg-no-Mori’.

There are two types of Hamakko turf: the sandy coast vegetation type consisting of *Calystegia soldanella* and *Lathyrus japonicus*, and the tall fringe vegetation type.



Hamakko turf

As for the functions of the mantle vegetation, a wooden greening fence called ‘Bay Climbers Fence’ with climbing plants such as wild grape entwined around it was developed. It is useful for blocking the sea breeze while at the same time the flowers and fruit attract birds and insects.



Example of a model vegetation (Higashimatsushima, Miyagi Prefecture)



Bay Climbers Fence

As for the forest part, we developed a mat with five kinds of trees: (*Castanopsis sieboldii*, *Machilus thunbergii*, *Ilex integra*, *Celtis sinensis* var. *japonica*, and *Albizia julibrissin*) and named it ‘Grove of the village shrine unit’ (Named by section manager Yasuda). General tree species do not grow well in coastal areas due to the salty air, however making those five species to form a scrum strengthens their tolerance. They are making good progress three years after planting.



‘Grove of the village shrine unit’

As for the products based on the functions of inland satoyama or village-vicinity mountains, we are developing the Nonohana Mat to function as a meadow, the Morikko Turf to function as Woodland fringes, and the Happy Tree to function as forest vegetation.



野の花ガーデン fukushima



Nonohana Garden Fukushima(Drawing by Keiko Yoshiya)

Nonohana Garden Fukushima

Wildflower gardens have become a global trend. According to Yuko Tanabe, a landscape architect who knows a lot about foreign affairs, wildflowers are popular in Europe as well. The landscape plan of the London Olympic Game's Opening Ceremony emphasized restoring the ecosystem and a wildflower meadow was laid out in the event venue.

The internationally increasing interest in biodiversity and appreciation for planting designs mixing in wildflowers seem to be in the background. Although our Nonohana Mat was developed with our own unique concept and techniques, it has universal value in terms of marrying wildflowers with pioneering design and biodiversity.

Furthermore, with the help of Mr. and Mrs. Yoshiya, English garden designers, we have built 'Nonohana Garden Fukushima' on our office premises in order to bring out the full potential of the wildflowers and to send a message from Fukushima to the world. Wildflower × English garden design = Creating global values.

Satoyama Set

Do want to provide our customers with amenity beautiful woodlands are the desire of us. Therefore, We have developed the compact products each the function of the Satoyama, 'forest', 'fringe vegetation', 'field' Please enjoy the eco-life using Satoyama Set.

Happy tree: We have developed that unit as a model of Satoyama forest. The unit is made by the combination of five kinds of trees.

Morikko turf: We have developed the vegetation mat as a model of Satoyama fringe vegetation. It is made by the combination of 8 kinds of trees and wild flowers. By cutting from the base every early spring, you can enjoy the update, youthful growth process. You can control below 1m in height also, enjoy the vegetation mat on the rooftop-garden and veranda.

Nonohana Mat: It is the vegetation mat that is implanted more than 10 kinds of the wild flowers. Even one mat, you can enjoy the four seasons.



Satoyama Set



Happy tree



Nonohana Mat



Nonohana Garden



Fringe vegetation



Morikko turf as a model of 'fringe'



Environmental education

1 Handing down the environmental business

Our management principle is 'Making green cities (machi) that offer happiness'. Here, machi means 'city,' as in our customers, and 'Ishikawa-cho (town) where we ourselves live.

We are a local business that uses the local assets of satoyama or village-vicinity mountain plants. By our development as a local business, we can pass on hope to the next generation.

We have carried out environmental education for local schools at all levels under the theme of an environmental business using local resources.

2010年(平成22年)6月13日(日曜日)



講演する仲田社長

6年生、地元社長に学ぶ 石川野木沢小

石川町の野木沢小六年生の総合学習の授業が八日、同校で行われ、町内の仲田種苗園の仲田茂司社長が講演した。キャリア教育の一環として実施し、六年生三十六人が参加した。仲田社長は四季の野草を寄せ植えた「野の花マット」の開発経緯などを紹介した。幼いころに遊んだ町内の自然あふれる環境と同じような美しい自然を多くの人に味わってほしいとの思いが、開発につながったとした。その上で、野の花マットが東京で屋上緑化に多く使われていることも示し、子どもたちが熱心に質問していた。同社は野の花マットの開発により、環境省などが主催するエコジャパンカップ2009のJ-P地域共存ビジネス賞と、東京農大の造園大賞を受けている。

"Sixth graders learn from local company president"
(Fukushima Minpo-sha Newspaper 2012・06・13)

Schools involved in the environmental education

- Ishikawa Municipal Nogisawa Elementary School
- Ishikawa-gun, Hirata Village Yomogida Junior High School
- Nakatani 2nd Elementary School
- Ishikawa Fukushima Prefectural High School
- Association of Elementary and JHS Vice-Principals

2 Supporting university students' workshops

A student design workshop by the Kanto Branch of the Japanese Institute of Landscape Architects (Public Corporation) was held in Ishikawa-cho in August 2012. The theme was 'Facing the land damaged by the nuclear power plant'. We helped this event in many ways: coordinated local authorities and community, offered information on local assets, and guidance for site surveys.

70 people in total participated: 50 students from 14 universities nationwide and 20 tutors (young and progressive designers and university lecturers). Having such a great number of students come to our town encouraged the local residents who have been suffering from financial damage caused by harmful rumors and misinformation.

Repeatedly studied through the interim report (Yokohama), Tohoku Branch of the Japanese Institute of Landscape Architects Congress (Koriyama), Kansai Branch Congress (Kyoto), Kanto Branch Congress (Tsukuba), all the team's presentations and proposals were fantastic at the site presentation on 16th of December. Unlike conventional academic conferences, students and local residents communicated profoundly. One scene where the students and local residents chatted surrounded by panels and models at the site presentation was striking.



Town Hall section chiefs, residents and students from Miyagi university chatting in our office.



Kansai team presenting the site report. (Nara Women's University, etc.)



Local residents and students talking while looking at a panel. The man in the green uniform is Mr. Kakiyama, a manager of our company.

3 Supporting the Low Carbon Cup Elementary School workshop

We were awarded the Minister of the Environment Award in the Social Business section of the 2012 Low Carbon Cup. Taking that opportunity, by the request of Kotaro Saito, a sculptor, we helped make the trophies for the 2013 Low Carbon Cup.

The leaders for the trophy making were the 18 pupils in 6th grade in Ishikawa-cho Municipal Nogisawa Elementary School, situated in the school district of our office, as well as that of Mr. Saito. As material for the trophies, we provided a 12m tall, approximately 100 years old great Acer that was close to the end of its life. There was only a very slight amount of radioactive cesium on the bark. The children conducted 'decontamination' to get close to zero by peeling the bark.

All our staff participated in the felling of the Acer tree and the peeling of the bark in November 2012 and we were encouraged by the great energy of the children.

In January 2013, the children assembled the Acer parts and made memorials for their own graduation. Even the Miyagi University students for the workshop joined in.

The Low Carbon Cup award ceremony was held on 17th of February 2013. Mr. Saito made the five trophies for the Minister of the Environment Awards from the same Acer timber as the children had used. Each one was decorated with a 'Fukko Ka (Flower of Recovery)' made from origami and including a message written by the children.

Our support was introduced in detail at the award ceremony and received much applause.





Felling of the great Acer. (Sawada farm)



Many media interviewed the students.



Koutaro Saito artist.



In the 2013 low carbon cup, Deputy Minister of Environment and the students has passed the trophy to the winners.



Trophy2012 low carbon cup(Our)



Trophy2013 low carbon cup(Our support)

Major evaluations and media coverage

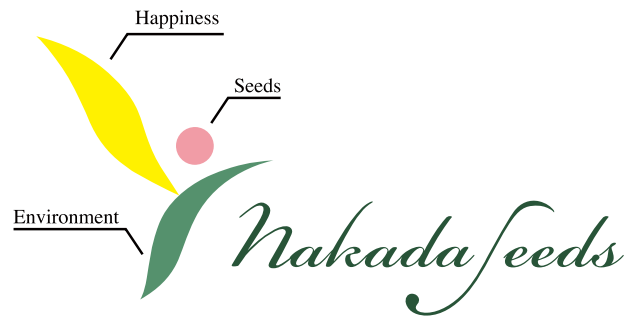
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- 2003 • NHK “Ohayo Nippon (Good morning Japan)” nationwide broadcast 『Environmental business making the most of the village-vicinity mountains』
- 2006 • BS1 “Keizai Saizensen (Economic Front Line)” 『Trendy 『Healing』 Business』
- 2009 • Eco Japan Cup 2009 (sponsors include Ministry of the Environment • Ministry of Internal Affairs and Communications.)
『JP (Japan Post) Local Co-existence Business award』
『Restoring urban biodiversity by using local indigenous seeds』
• Aomori Broadcasting Corporation “Newton’s Apple” (Featured Nonohana mat as an effective item for heat island problems)
- 2010 • Best Landscape Award (Landscape Department at Tokyo University of Agriculture)
“Development of vegetation block mats that consist of indigenous wild species such as Nonohana mat and Aze turf”
• Yomiuri Shinbun newspaper, nationwide version “Eco Life Wildflower revival mat.”
• NHK Fukushima branch “Konohito-ni-kiku (Ask this person),” 『Wildflowers and biodiversity』
- 2011 • Approved by Agriculture, Commerce, and Technology related business (Ministry of Economy and Trade and Industry • Ministry of Agriculture, Forestry and Fishery)
“Developing a 3-dimensional greening system valuing biodiversity, branding and marketing.”
• Fukushima Broadcasting Corporation “Moving forward,” Fukushima TV “Protecting the wildflowers of Fukushima,” and Fukushima Central Television “Happy Tree.” All of these programs were sponsored by the Cabinet Office and introduced our company.
- 2012 • Low Carbon Cup 2012 : The Minister of the Environment Prize in the Social Business division.
• NPO Fukushima Fukei-Juku: Best Award for Advertisement (Fukushima Minpo-sha newspaper)
Gold medal in the Color Category “Ishikawa Sakura-dani (The Cherry Valley of Ishikawa)”
• Fukushima TV 『Hamakko turf that survived the tsunami』



Management Principles

「CREATING A HAPPY GREEN TOWN」

- 1 We offer happiness by greenery.
- 2 We offer healing and comfort to clients living in urban cities.
- 3 We contribute to the revitalization of our town by developing as a local enterprise.
- 4 We personally grow through our work and realize both physical and spiritual happiness.



Production principles

1 VALUING INDIGENOUS PLANTS THE MOST

We inherited the founder (Shigeru Nakada)'s principle to 'commercialize the best ones from among the indigenous plants.'

About 50 species of trees and 100 species of wildflowers grow in the Japanese satoyama or village-vicinity mountains. 'Isogi Momokusa' (50 trees 100 plants) is the source of beauty of Japan that cherishes the four seasons.

However, due to pressure from development and the invasion of foreign plants, even the most familiar plants are diminishing year by year. We will do our best to conserve indigenous plants as well as propagate them, and supply Japan's original beauty and comfort.

2 PRODUCERS OF ECOSYSTEM

Plants are ecosystem producers. They create organic matter from inorganic matter, and supply it to animals who are the consumers.

We, as plant producers, are aware of being involved in the restoration and maintenance of a healthy ecosystem.

By restoring urban biodiversity, we contribute to improving the environment that affects human life and comfort in the cities - the air temperature, air, water and soil quality.

Company Profile

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 URL: <http://www.eco-plants.net/>
 E-mail: pieris@ruby.ocn.ne.jp
 facebook: nakadasyubyouen
 Capital: 10,000,000 JPY
 Main Nurseries:

Sawada Farm (Ishikawa-cho) :

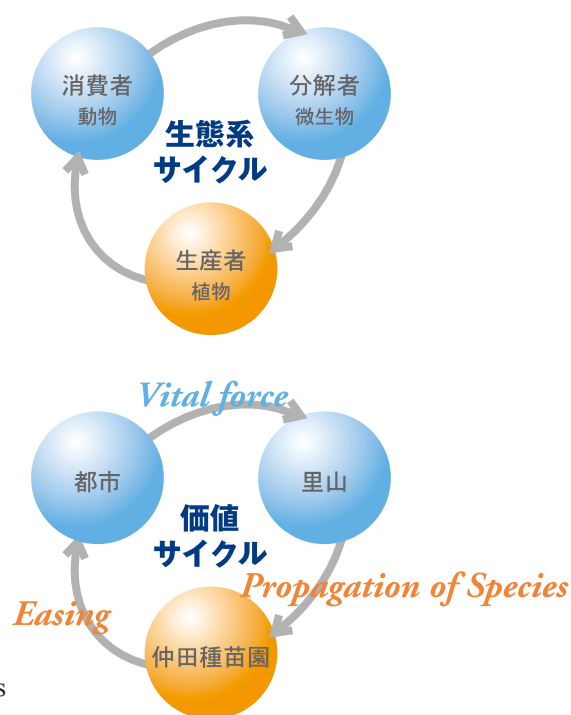
15 ha: Miscellaneous trees for gardens, and Japanese Acers

Yabuki Farm (Yabuki-cho) :

5 ha: Vegetation mat production

Aono Garden Club (Samegawa village) :

10 ha: Registered garden in the Japan Nurserymen's Association



Our staffs with testimonial from the customer



Web shop staff responsible



GLOCAL(Think Globally,Act Locally)

The maple Summit that we held at the Nakada Nursery in November 2008, was attended by 90 researchers from eight countries.