

THE KURUME AZALEA (KURUME TSUTSUJI)

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INTRODUCTION

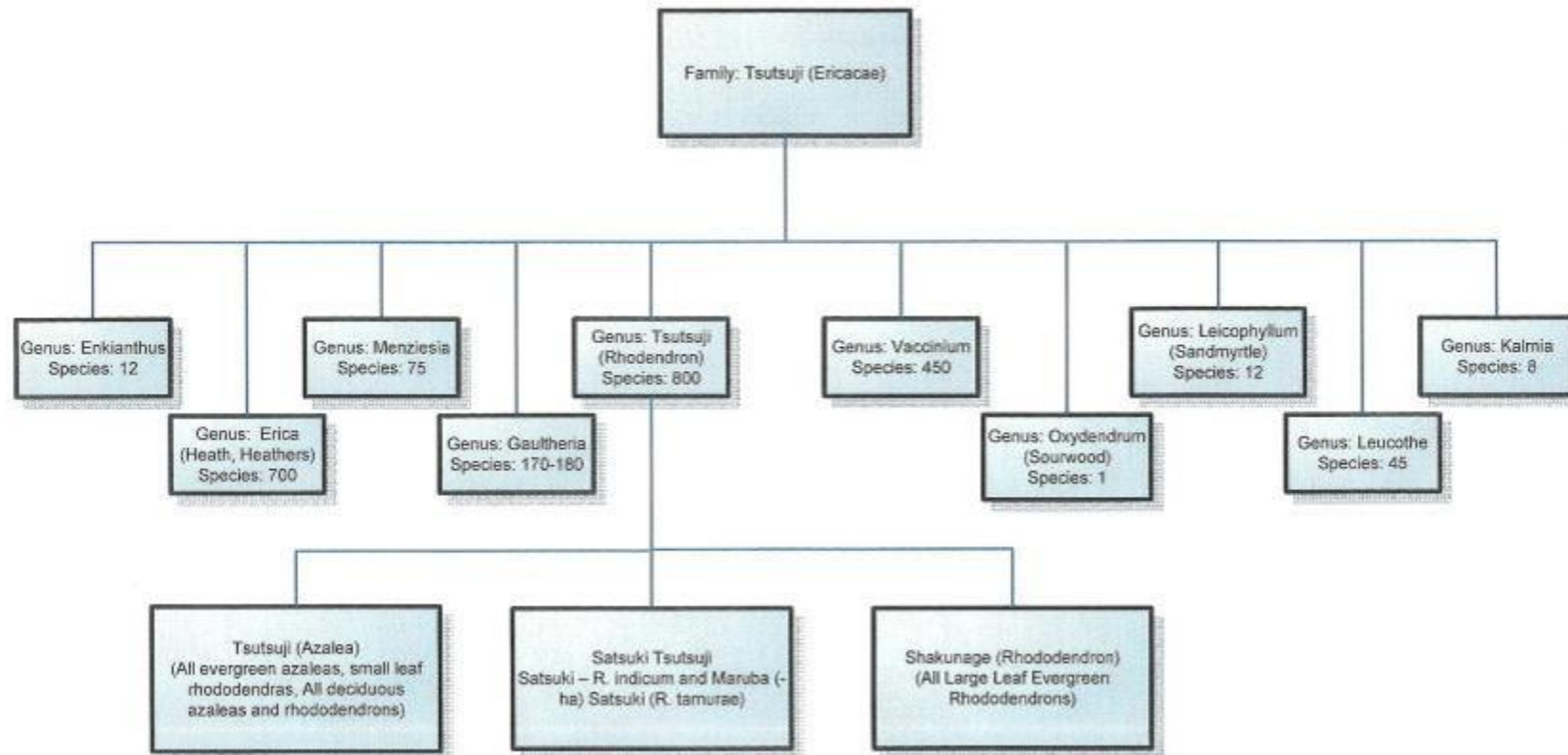
- **1. Purpose**
- **2. Taxonomy**
- **3. Definition of Hybrids**
- **4. Origin**
- **5. Introduction of Kurumes in Japan by Period (Edo, Meiji, Taiso, Showa)**
- **6. Passage of Kurumes to the West: Domoto Bros., Wilson, Stevenson, USDA (Beattie), National Arboretum (Creech, Meyer & March)**
- **Postscript**

R.H. Whittaker (1969)

- **V (Five) *Regnuua* (Kingdoms) of Life**
- **Based on Cell Structures, Body Structures, Nutritional Modes, Ecological Life Styles, and Phylogenetics:**
- **I. *Animalia* (Animal): Examples: Human, other Animals**
- **II. *Plantae* (Plant): Example: All Plants**
- **III. *Fungii* (Fungus): Examples: Mushrooms**
- **IV. *Protista* (Protist): Examples: Protozoans, Amoeba, etc.**
- **V. *Monera* (Monera): Examples: Plasmodiums, Red Algae, etc.**

TAXONOMICAL FLOW CHART OF ERICACEAE

Jisaburo Ohwi, 1965



ORIGINS OF EVERGREEN SPECIES AZALEAS

- **All evergreen species azaleas are endemic to Asia:**
- **Japan: >17 (Except for a couple, they are hardy to Zone 7 or higher (a few into Zone 6))**
- **China: >15 (Not very reliable; same plant goes by different names in different locations) (Only one is hardy to Zone 7)**
- **Korea: 2 (Both hardy to Zones 5-7)**
- **Taiwan: 2 (Both hardy to Zones 6 & 7)**
- **The Philippines, Vietnam, India, and Siberia: 1 each (Only the one in Siberia is hardy to Zones 5-7)**

IN THE BEGINNING

- **Motozo Sakamoto, a retainer of the Kurume Feudal Klan, brought a group of azaleas collected from Mt. Kirishima in Kyushu. They were originally named Kirishima Tsutsuji (Kirishima Azaleas) and were distributed around what is now Kurume City, Fukuoka Prefecture, Kyushu. Once Kurume City was founded in 1889, these plants were planted there and renamed Kurume Tsutsuji (Kurume Azaleas). A few of these Sakamoto plants still can be found in the trade in Japan. Examples: ‘Kochou no Mai’, ‘Kurai no Hana’, ‘Shakkyou’, etc.**

‘Kochou no Mai’: An Original Sakamoto Plant (Credit: Dr. Satoshi Yamaguchi)



‘Shakkyou’: A Second Original Sakamoto Plant (Credit: Dr. Satoshi Yamaguchi)



INTRODUCTION OF KURUME HYBRIDS IN JAPAN I

Kurume-shi Sekai Tsutsuji Sentaa (Kurume City World Azalea Centre) in Fukuoka, Kyushu, 2022

- **Edo (aka Tokugawa) (1603-1867): 66 Cultivars- eg. 'Agemaki', 'Azuma Kagami', etc.**
- **Meiji (1868-1912): 170 Cultivars- e.g. 'Ima Shoujou', 'Osaraku', et.**
- **Taisho (1912-1926): 33 Cultivars- e.g. 'Kagura', 'Fukuhiko', etc.**
- **Showa (1926-1989): 57 Cultivars- e.g. 'Kunimitsu', 'Gunki', etc.**

INTRODUCTIONS OF KURUME HYBRIDS IN JAPAN II

- **During 1989- Date:** Kurume hybrids are developed in two locations of Kurume: Kurume Branch of the National Institute of Vegetables, Ornamental Crops and Tea, the Ministry of Agriculture, Forestry, and Fisheries (MAFF) (aka The Kurume Research Station); and Kurume-shi Sekai Tsutsuji Sentaa.
- **Development of similar hybrids in Edo (older name of Tokyo until 1868) and recent.** They are called 'Edo Kirishima Tsutsuji' ('Kirishima Azaleas in Edo'). Examples: 'Hinodegiri', 'Benigiri', etc.

'Hinodegiri' (An Edo Kirishima Hybrid)



THE NAME KURUME TSUTSUJI (KURUME AZALEA)

- **Most Of these plants were distributed near around and in newly founded Kurume City (a prefect of Fukuoka, Kyushu) in 1889. Thus, the name 'Kurume'. The Kurume name is very restrictive as opposed to other hybrids such as Satsuki, Hirado, etc. A hybrid must be found or made in the Kurume City area in order for it to be called a 'Kurume Tsutsuji' or simply 'Kurume'.**

MAP OF KYUSHU SHOWING FUKUOKA & KURUME



WHAT IS A HYBRID?

- **A hybrid is a cross (either natural or human made) between two or more species, one or more species and one or more hybrids, or two or more hybrids (In Latin: *Hybrida*).**
- **Examples: Kurume, Mucronatum (Ryukiu), Hirado, Satsuki, Huang (China), etc.**

ORIGIN OF KURUME HYBRIDS I

- Mt. Kirishima near Fukuoka houses three major species of evergreen azaleas:
- *Rhododendron sataense* Nakai (*Sata tsutsuji*); *R. kiusianum* Makino (*Miyama Kirishima tsutsuji*); and *R. kaempferi* Planch (*Yama tsutsuji*)
- Depending on the altitude, locations, and other environmental factors, *kiusianum* is dwarf and compact, *sataense* is medium sized (4'-6'), *kaempferi* is generally tall (6'-10') all in 40 years.

R. kiusianum (*Miyama kirishima*) on Mt. Kirishima Slope



R. Sataense (*Sata Tsutsuji*) on Mt. Kirishima



R. Kaempferi (*Yama Tsutsuji*) on Kirishima Mountain



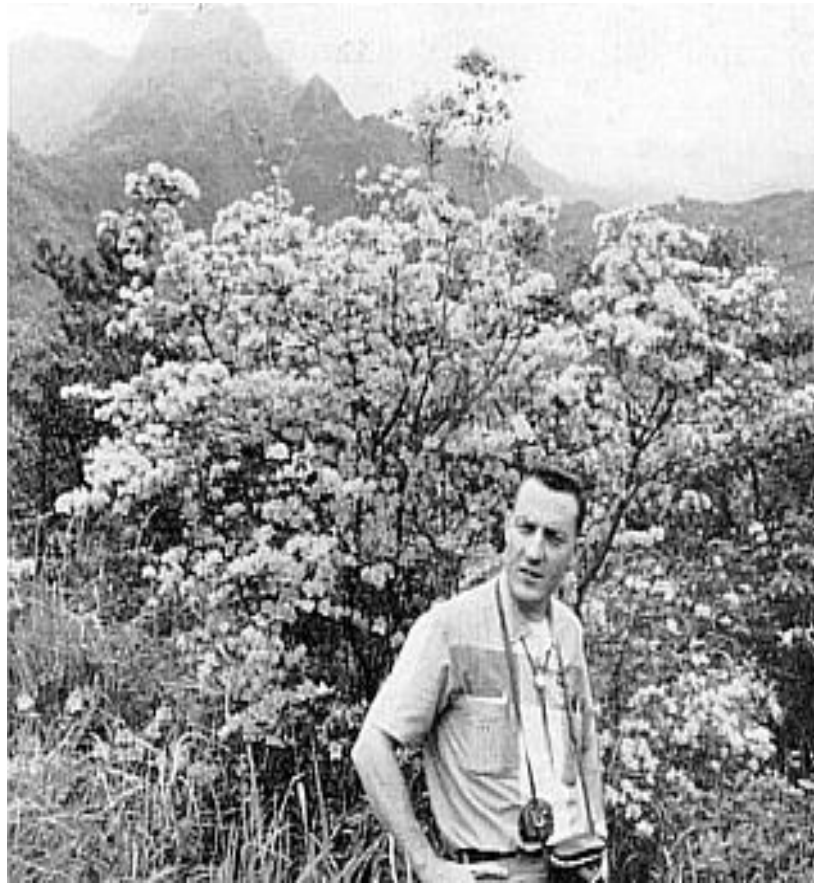
Volunteers Working to Clean *R. kiusianum* Colony in Unzen National Park



Unzen-Amakusa National Park

A Day of Miyama Kirishima Azalea Conservation

Photograph of Dr. John L. Creech (1961) in Front of *R. kaempferi*
on Mt. Kirishima



ORIGIN OF KURUME HYBRIDS II

- **Most Kurume hybrids are now known to be either natural or human crosses of *sataense*, *kiusianum*, and *kaempferi*.**
- **Edo Kirishima Tsutsuji: A group of hybrids made in Edo (old name of Tokyo) using the above three species. They are similar to the Kurume hybrids but are not accepted as Kurume. An example is ‘Hinodegiri’.**

ORIGIN OF KURUME HYBRIDS III

- **New research (Ueno et al, 2005) using AFLP (Amplified Fragment Length Polymorphism) marker indicates *R. stenopetalum* (Hogg) Mabb (formerly (*R. macrosepalum*) (*Mochi Tsutsuji*- 'Big Sepal Azalea'), *R. ripense* Makino (*Kishi tsutsuji*- 'Riverbank Azalea'), and their natural hybrid 'Mucronatum' ('Ryukyu tsutsuji') are also involved in hybridization of Kurume azaleas.**
- **Note: These three varieties are fragrant and have medium-to-large flowers. However, this fragrance did not transmit into the Kurume hybrids.**

Plant Habit & Longevity of Kurume Hybrids

- Depending on sun exposure, availability of moisture, hardiness zone, and other environmental factors, they can be categorized as follow:
- 1. Low growing & compact: 2-3' in 40 years ('Aratama', 'Hou Ou, etc.)
- 2. Mid sized & compact: 3-5' in 40 years(Kirin, Osaraku, etc.)
- 3. Tall & shrubby: 5-8' in 49 years ('Mizu no Yamabuki', 'Waraijishi', etc.)
- Note: Many display colored autumn foliage.

Flower Forms and Sun Exposure

- **Most Kurume hybrids have small 1-2” diameter flowers. Except for a couple with double and several with h/h flowers, they are single with 5 petals. Because of small flowers, they are very floriferous. They bloom early (late April-Middle of May) so they can tolerate full sun. The color range is white to red (no yellow or blue!)**
- **The white flowers can get sun burnt.**

Inter-group Hybridization in Kurume Area

- **There have been several inter-group hybrids developed in the Kurume area with Kurume and other hybrid groups as parents. Some of them are indoor forcing azaleas: Examples are Kurume-Tairin, Kuwano, and Hisatomi azaleas.**

Inter-group Azaleas: Indoor Forcing with Belgian Indica

- **Toraō Noguchi (1955) released crosses of Kurume hybrid X Belgian Indica hybrid. They were often multi colored, double and have large flowers (>3"). They are hardy outdoor to warmer parts of Zone 8 and higher. Some examples are- 'Ohkan', 'Harunohibiki', etc. No specifics are known. Some of them maybe available in California.**

Intergroup Hybrid: Belgian Indica X Kurume: 'Haru No Hibiki'



Inter-group Azaleas: Kurume-Tairin

- **Kijirou Akashi (Akashi Kourakuen Nursery) and Masayuki Nakahara (Nakahara Chourakuen Nursery) released several hybrids by crossing Kurume with Hirado hybrids. Most of them have large (>3") flowers of intense color and are single. They are hardy to Zone 8 or higher. Some Examples are: 'Tenshin', 'Sokoshiro-Shakunan ', etc.**

Intergroup Hybrid: Kurume Tairin (Kurume X Hirado):
'Shokoshiro-Shakunan'



Inter-group Azaleas Kuwano's Kurume-Satsuki Hybrids

- **Keuchi Kuwano & his Grandson Takeno Kuwano bred several cultivars of Kurume Hybrid X Satsuki Hybrid after WW II. The purpose was to produce early blooming plants with large (3-5" flowers) to bloom earlier than the Satsuki hybrids. Some examples are: 'Hoshi Kagami', 'Hana no Mizuni', etc.**

Intergroup Hybrid: Kurume X Satsuki: 'Hosi Kagami' (Kuwano)



Inter-group Azaleas: Hisatomi Hybrids

- **Tadashi Hisatomi (Senkaen Nursery) released several Kurume X Satsuki crosses since 1932. His purpose was to produce large Satsuki-type flowers on plants that would bloom in-between Kurume and Satsuki blooming seasons. Some examples are: 'Chikushino', 'Konohana', etc.**

Intergroup Hybrid: Kurume X Satsuki: 'Chikushino':
(Hisatomi)



Inter-group Azaleas: Kurume-shi Sekai Sentaa: Kurume X Satsuki

- **Under the direction of Dr. Akihide Okamoto, research involving Kurume hybrids with Satsuki and some other varieties are going on. Three Kurume X Satsuki hybrids have been introduced into trade in Japan: 'Beni Kasuri', Hime Kasuri, and Yume Kasuri. They have banded large flowers in the same pattern as in the Satsuki 'Shinnyo no Tsuki' or its sport 'Sumizome'.**

Intergroup Hybrid: 'Beni Kasuri' (Kurume X Satsuki)
(Credit: Dr. Akihide Okamoto)



Intergroup Hybrid: 'Hana Kasuri' (Kurume X Satsuki)
(Credit: Dr. Akihide Okamoto)



Intergroup Hybrid: 'Yume Kasuri' (Kurume X Satsuki)
(Credit: Dr. Akihide Okamoto)



PASSAGE OF KURUME HYBRIDS TO THE WEST

- **In the 1870's: Imported in US from Belgium, England, Holland, or Japan a few undocumented Kurumes as florist's azaleas. In 1915, first collection of Kurumes were exhibited in San Francisco by Kijiro Akashi at the Pan Pacific Exposition. There were several other varieties (such as Hirado, Mucronatum, Satsuki, etc.) that were lumped together. Since then, there have been four major introductions in US and one in England.**

Domoto Brothers of Hayward California (1915-1917)

- **Kojiro Akashi: Exhibited a number of Kurume and other hybrids at the Pan Pacific Exposition in San Francisco. They were not well documented. Domoto Brothers (Toichi and Kan) bought a few of them for their nursery in Hayward, California and sent their father Kanetaro to Kurume in Fukuoka to acquire some more plants in 1915-1917.**

Domoto Brothers (Contd.)

- **The Domoto Brothers gave exclusive East Coast rights to Bobbink & Atkins Nursery (East Rutherford, NJ), Cottage Gardens Nurseries (Long Island, NY), and Henry A. Dreer, Inc. (Riverton, NJ). Together they assigned English names to these plants. Because of that, it is difficult to correlate them to the correct Japanese plants. Some of their introductions have disappeared except in old garden collections in the South.**

Domoto Brothers (Contd.)

- **A handful of the Domoto Bros. plants can be found in our area such as: 'Hou Ou' (aka 'Ho O', 'Apple Blossom'), 'Azuma Kagami' (aka 'Pink Pearl', 'Imashoujou' (aka 'Imashojo', 'Christmas Cheer', 'Fascination'), 'Kirin' (aka 'Coral Bells', 'Daybreak', "Pink Beauty'), etc. Some of them were reintroduced later in other introductions.**

Domoto Brothers Introduction: 'Kirin' (Coral Bells', 'Daybreak', 'Pink Beauty')



Domoto Bros Introduction: 'Ima Shoujou' ('Ima Shojo',
'Christmas Cheer', 'Fascination')



Domoto Bros. Introduction: 'Mizu no Yamabuki'



Ernest H. Wilson (1918): Wilson's 50

- **Wilson acquired 50 Kurume hybrids (actually 49 cultivars, the other one, 'Hinodegiri' is actually an Edo Kirishima hybrid) from Kijiro Akashi's nursery in Kurume. They were brought to Arnold Arboretum. Eventually they were sent to the Royal Horticultural Society Gardens in Wisely, England and Thomas Welden of Richmond, Virginia.**

Ernest H. Wilson (1918): Wilson's 50

- **Wilson gave them Western names but retained the original Japanese names. Because of that we can correlate them to the original Japanese names. They were assigned Wilson numbers 1-50. Some of the cultivars were already in US because of Domoto Brothers acquisitions.**

Ernest H. Wilson (1918): Wilson's 50

- They are actually Kurume hybrids and many of them are still seen in many gardens. Some examples are: 'Takasago' (aka 'Cherry Blossom', Wilson's #11), 'Osaraku' (aka 'Penelope', Wilson's #17), 'Aioi' (aka 'Fairy Queen', Wilson's #45), etc.**

'Takasago' (aka 'Cherry Blossom', Wilson's #11)



'Osakaraku' (aka 'Penelope', Wilson's #17)



‘Aioi” (aka ‘Fairy Queen’, Wilson’s #45) (Credit Dr. Satoshi Yamaguchi)



USDA Introduction (1929-1930); R. Kent Beattie

- **R. Kent Beattie acquired originally 90 and later another 37 cultivars of mixed bag consisting of 60 Kurume hybrids (49 new and 11 same plants introduced earlier). The rest were Hirado, Mucronatum, and Satsuki hybrids. The USDA retained their original Japanese names and in a few cases, also gave English names.**

USDA Introduction (1929-1930); R. Kent Beattie

- **The USDA assigned 5-digit Plant Introduction (PI) accession numbers to these plants. Many of these plants are no longer available in the nursery business in USA. Three of the notable ones are: 'Kirin' (aka 'Coral Bells', 'Daybreak', 'Pink Beauty', PI 77064), 'Kagaribi' (PI 77102), and 'Kochou no Mai' (PI 77136).**

'Kagaribi' (PI 77108)



'Kochou no Mai' (PI 77136)



National Arboretum (NA) Introductions (1976, 1978)

- **Drs. John L. Creech and Frederic G. Meyer along with Sylvester G. March, with the help of Dr. Masaaki Kunishige, then of the Kurume Station, selected and imported 50 Kurume hybrids from Kurume City. According to Dr. Kunishige, these 50 covered the entire color range of the Kurume hybrids.**

National Arboretum (NA) Introductions (1976, 1978) (Contd.)

- **Out of these 50, 33 cultivars, judged to be the best by Dr. Kunishige, were released to a selected group of individuals and nurseries. Most of these plants have small-to-medium single flowers with a few being h/h. The Arboretum retained their original Japanese names and assigned accession numbers as NAXXXXX.**

National Arboretum (NA) Introductions (1976, 1978) (Contd.)

- **Several of these plants had been previously introduced. Some examples are: 'Aratama' (NA45406), 'Gunki' (NA45422), 'Kagura' (NA45419), 'Tokoharu' (NA45433), 'Wakaebisu' (NA45450), etc.**

'Aratama' (NA45406)



'Gunki' (NA45422)



'Kagura' (NA45419)



'Tokoharu' (NA45433)



'Wakaebisu' (NA45450)



'Wakaebisu' (NA45450) (Closeup)



Stevenson Introduction (1937, 1938) (England)

- **J.B. Stevenson imported a large number of plants from Yokohama Nursery and K. Wada. He gave these plants to Sunningdale Nursery (now defunct) in Surrey, England. They introduced them as florists' azaleas. Over 50% of them were actually Hirado, Mucronatum, and Satsuki hybrids.**

Stevenson Introduction (1937, 1938) (England) (Contd.)

- **Many of their plants did not survive in English and other European climates outdoor. A large number of these plants were mislabeled, misspelt (e.g. 'Geisha; became 'Gaeshi'), or misnamed. Dr. Akihide Okamoto made some corrections of the Kurume plants and we extended that and incorporated in Thakur and Beck (2022 a and b, 2022). Examples: 'Itten' (also NA45410), 'Kokonoe', and 'Tokonatsu' (also NA45440), etc.**

'Itten' (NA45410)



'Kokonoe'



'Tokonatsu' (NA45440)



Autumn Colors on Kurume Azaleas

- **Many of the Kurume azaleas have spectacular autumn foliage- yellow, pink, red. Generally the white flowering azaleas show yellow foliage in the autumn and the red flowering ones exhibit orange-to-red autumn foliage. The extent of the colors depends on the summer rain and other environmental factors. Here are a few examples:**

Autumn Foliage on a Kurume Azalea 1



Autumn Foliage on a Kurume Azalea 2



Autumn Foliage on a Kurume Azalea 3



Post Script

- **1. Kurume Collection Sites in Japan**
- **2. The Cuckoo and Azaleas**
- **3. Bonsai**
- **4. References**
- **5. Acknowledgment**

1. Kurume Collection Sites in Japan

- **There are literally hundreds of sites in Japan (except for Hokkaido) where one can spend days viewing Kurume, Satsuki, Hirado, and other azaleas. Because of time constraint, I will show only a handful of them to you .**

1. Chinkokuji Temple- Munekata City, Fukuoka Pref.



2. Kurume Forest Tsutsuji Koen- Kurume, Fukuoka Pref.



3. Nezu Azalea Festival- Bunkyo City, Tokyo



4. Shofune Kannon-ji- Tokyo



5. Tsutsuji Fuji- Hakone, Near Shizuoka



6. Tsutsuji Gaoka Koen (Azalea Hill Park)- Tatebayashi City, Gunma Pref.



Tsutsuji Gaoka Kuen (Azalea Hill Park): 800-Year Old *R.
kaempferi*



2. The Cuckoo and Azaleas- Woodblock Print by Katsushika Hokusai (1828)



Katsushika Hokusai Woodblock Print (1828)

- **According to the legend, there was a bad king in China many moons ago. He used to torture and kill his people he did not like. Finally one of his generals brutally killed him to save the people. The slain king reincarnated as a cuckoo. In April when many azaleas bloom, the cuckoo would violently cry. Blood would ooze out of his beak and fall on the azaleas to make them red.**

Bonsai with Kurume Azaleas

- **Just like the Satsuki azaleas, the Kurume hybrids also make excellent bonsai of all shapes. We will briefly look at 3 of them here**

Waka Kaede Bonsai (Credit: Kurume no Tsutsuji, 1989)



Kirin etc. Bonsai (Credit: Kurume no Tsutsuji, 1989)



の空 (Omoinosora)

麒麟 (Kirin)

此ノ花 (Konohana)

Kure no Yuki Bonsai (Credit: Kurume no Tsutsuji, 1989)



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Acknowledgments

- **Credits are due Drs. Akihide Okamoto and Satoshi Yamaguchi (retired) for sharing their research on Kurume Azaleas and offering their kind permission to reproduce some of their slides.**