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Hybrid Tea Rose
PEACE
(Mme. A. Meilland)

Plant Pat. 591
PLATE NO. 9A

Hybrid Tea Rose

PEACE (Mme. A. Meilland)

Plant Pat. 591

All-America  Rose Selections Award Winner
Suggested Catalog Descriptions

The most distinctive Rose introduction in many years. The buds, of fresh, bright yellow edged with carmine, open to magnificently formed blooms of soft, clear yellow, each petal edged with pink. Although the bloom is unusually large, double and long-lasting, the dainty, clean and sparkling colors give it an almost ethereal loveliness. Vigorous, upright plants with strong stems and heavy, luxurious foliage. If you have room for only one new Rose in your garden this year, be sure this is the variety you select.

PEACE (Mme. A. Meilland). Plant Pat. 591. This glorious Rose is almost unbelievable in its beauty, size  and lasting qualities. The buds are golden yellow enlivened by a flush of vivid pink at the petal edges. These buds open slowly, giving long-lasting blooms that show delicate tints of yellow, pale gold, cream and ivory blending on each petal to a lightly ruffled edge of pink.

The colors vary, and the change of tints is an enchanting thing to watch, as it differs from day to day and from flower to flower but is always beautiful and always in harmony, like the different, shimmering colors of a rainbow. Though the very double bloom is huge, it is constantly fresh looking, and its coloring always gives an effect of delicate loveliness even in the fully open flower, which actually is just as beautiful as the half-open bud and even more exciting!

The final miracle of Peace is that the plant is as remarkable as the blooms, with long, straight, magnificently strong stems and handsome, shining dark green foliage. The blooms come in glorious succession and hold their form and freshness remarkably.

Some of the Leading Awards Received by Peace:

- 1941: Peace won the Gold Medal of the National Horticultural Society of France at its first showing.
- 1942: "Most Beautiful Rose of France" award.
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Hybrid Tea Rose

PEACE (Mme. A. Meilland)

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PLATE NO. 10A

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PLATE NO. 5B

Hybrid Tea Rose
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PLATE NO. 5C

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PLATE NO. 6A



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PLATE NO. 10B

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PLATE NO. 2



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PLATE NO. 8

Hybrid Tea Rose

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PLATE NO. 5A

Introduced Fall 1945

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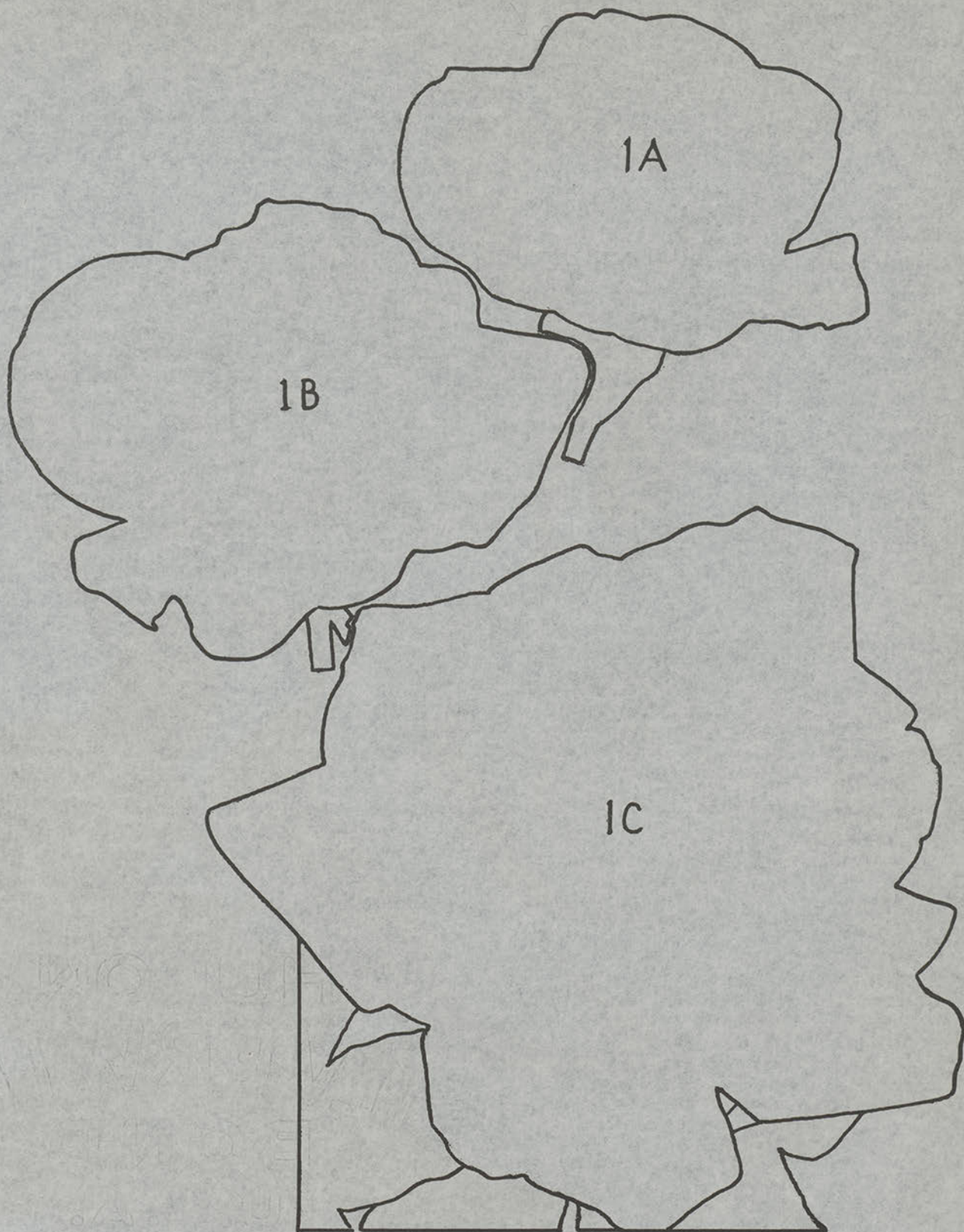
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Hybrid Tea Rose **PINK PEACE** *Plant Pat. App. for*
PLATE NO. 1

- 1 -

STORY of the ROSE "PEACE" (Mme. A. Meilland)

On looking through one of our note books whose pages were already yellowing, we came across, under the date of 15 June 1935, the traces of what might be described as the "first pollen-charged brush stroke which gave rise to PEACE (Mme. A. Meilland), the rose we consider to be one of the very best we have ever produced.

It was inscribed under the number 3-35-40 which means that the combination which produced it was the third we made in 1935, and that it was the fortieth of the 50 subjects which had received favorable notice before we budded a few eyes from the small original plants.

The data in our note book tells us also that 55 flowers were fecundated under precisely similar conditions, and that, from these, 52 hips were obtained whose seeds during the following year produced 800 little plants. The female rose in PEACE (Mme. A. Meilland), was JOHANNA HILL, the male rose was an unknown seedling inscribed under the number 103-32-A, and came from CH. P. Kilham fecundated by MARGARET MC GREDY. What was our object in making this crossing? The principal idea behind the 103-32-A crossing is still very clear in our mind, in spite of the interval of 20 years. At that time we were looking for a way of producing a resistant foliage and winter hardiness in copper colored roses, and that was why we chose MARGARET MC GREDY which we much admired for its qualities as a strong, hardy plant.

CH. P. KILHAM, on the other hand, was an excellent female which we knew to be capable of transmitting its own characteristic shape and color to its progeny.

From this cross between CH. P. KILHAM and MARGARET MC GREDY, sprang a vigorous rose with a bi-colored flower and extremely brilliant color, whose shape, however, left something to be desired. Its flowering also, was most capricious, sometimes quite magnificent, at others frankly ugly. At one moment indeed, we seriously considered the idea of disseminating this variety which we had been subjecting to a most rigorous selection, but we finally abandoned this idea as we judged that our original object had not been attained. Since then, but not before we had used it successfully as the male progenitor of the rose PEACE (Mme. A. Meilland), we have lost this variety; we regret this at times because it would have been useful to us in the pursuit of certain problems. The object we had in view with the JOHANNA HILL x (CH. P. KILHAM x MARGARET MC GREDY) cross was to produce a new rose of great hardiness, with very long shoots and with a robust and decorative foliage, similar to that of MARGARET MC GREDY. As for its color, this would no doubt vary between yellow and a bi-colored red and yellow, and in other words it would have a pretty wide range.

Experience having proved that the characteristics conditioning the shape of OPHELIA'S flowers were dominant, reproduced themselves in its progeny as, for example, in JOHANNA HILL, we decided that this rose was the best variety to use, because of its fairly pronounced yellow color. This rose possessed the added advantage of developing a quite exceptionally vigorous and upright plant, of being extremely hardy, and of producing buds in every way as well shaped as those of OPHELIA.

Such were the conditions governing the choice of begetters of the future rose PEACE (Mme. A. Meilland).

We still have a very clear picture in our minds of the exact place in the seedling frame occupied by the original plant of PEACE (Mme. A. Meilland) among so many others whose colors varied from yellow and pale pink to more brilliant copper and some bicolored red flowers, but these last rather rare.

It was not very sturdy, this little 3-35 plant, and there was nothing about it to attract attention. It was during the summer of 1936 that a few eyes were budded for the first time. Budding certainly took place very early in the season because about October 10, as my father and I were walking past the budded plants, we noticed their foliage surmounted by large buds just about to open.

Under the influence of extremely favorable weather conditions during that autumn of 1936, these few buds produced flowers quite marvelous in shape and size with a greenish tinge, warming to yellow, and progressively impregnated with carmine round the edges of the petals.

Systematic study of the 50 subjects obtained from the 800 seedlings showed nothing of great interest, with the single exception of the one marked 3-35-41 which was astonishingly like the one marked 3-35-40 with difference that, on opening, the flower was flatter, its color less intense, and its foliage less resistant with a predisposition to chlorosis. Its stems, moreover, were much more thorny. Some years later plant 3-35-41 was definitely set aside in favor of its sister 3-35-40 which was the only plant chosen from this cross.

In June 1939, this plant proved the great revelation of the season and attracted the most attention among visitors.

During that summer buds were sent to Germany, Italy and the United States. As we had no distributor in England at that time, buds were not sent to that country until the following year.

With the brutal suddenness, war broke out on the third of September 1939 and all communication with Germany Ceased. After the invasion of June 1940, the same thing happened with Italy and then England. The result was that the German firm which was to have distributed this rose 3-35-40 put it on sale under the name GLORIA DEI, and the Italian firm sold it under the name Giola. In France, my father and I decided to dedicate this rose to the memory of my Mother, Mme. A. Meilland, who had died a few years previously.

Before being admired by rose lovers under its proper name, 3-35-40 was particularly admired in Antibes where we were engaged in its propagation. The Comte de Martel, French High Commissioner in Syria at that time, was our neighbor. Accompanied by the Comtesse de Martel, the Duke of Windsor expressed a desire to visit our glass-houses and open air plantations, and spent over an hour doing so. He was most enchanted by 3-35-40 and said, to us his own words:

"I have never seen another rose like it. It is
certainly the most beautiful rose in the whole world."

Until June 1945, we had not the least idea as to what had become of this rose in the United States. It was only then that the Conard-Pyle Company told us of the successful experiments it had been making in cultivating it, and that, in agreement with certain other rose growers of repute, it had been decided to call it PEACE, to symbolize, as it were, the happy event which was to mark the end of the trials and suffering which the world had been experiencing for five years.

The ceremony at which PEACE was baptized took place under the auspices of the American Rose Society, after several months' notice of the event had been given. The date had been fixed for 29 April 1945 which, by an extraordinary coincidence, was also that of the fall of Berlin.

Shortly after this a meeting of 49 delegations of the United Nations took place in San Francisco, and the heads of 49 delegations received, each in his own apartment a small vase with a single rose PEACE accompanied by the following message:

This is the PEACE ROSE which was christened at the Pacific Rose Society exhibition in Pasadena on the day Berlin fell.

We hope the PEACE ROSE will influence men's thoughts for everlasting WORLD PEACE.

AMERICAN ROSE SOCIETY
Dr. Ray Allen, Secretary
Harrisburg, Pennsylvania, U.S.A.

We shall never forget all the emotions we have experienced by the creation of this rose. The enthusiasm with which it has been received everywhere allows us to speak of it with the conviction that it is really the best rose we have produced.

If circumstances have decided that it should be known by different names in different countries, this at least is true that each of these names reminds men of good will that the love of flowers, and in particular the admiration of this rose will forever provide them with the occasion to praise God, with GLORIA DEI, to face life with a smile, with GIOLA, to wish for peace, with PEACE and, as far as we ourselves are concerned, to perpetuate a loving memory, with Mme. A. Meilland.

Francis Meilland

5/7/65

THE STORY OF PEACE ROSE RETOLD

In this year of strife and turmoil, a garden of Peace rose has been planted in Osaka, Japan on the grounds of Expo-70. At the conclusion of the World Fair, this Peace rose garden will be maintained in perpetuity as a lasting symbol of world peace.

We are here reprinting from an article by Francis Meilland, hybridizer of the rose, Peace, the story of its origination (Francis Meilland died in June 1958).

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"The object we had in view with the Johanna Hill x (Ch. P. Kilham x Margaret MacGredy) cross, was to produce a new rose of great hardiness, with very long shoots and with a robust and decorative foliage; similar to that of 'Margaret MacGredy'.

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PEACE — All-America award winner for 1946 and one of the most beautiful roses the world has ever seen.

P-4 Glossy Photo or 2 Col. Mat

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Francis Meilland.
Cap d'Antibes, France

Rose Potpourri

Rose Potpourri is made of properly dried rose petals stored in a jar having a tight lid. Roses properly prepared and stored will maintain their delightful fragrance for years. An ancient recipe for rose potpourri is as follows. It is of prime importance that the blooms be picked when they are newly opened before they have lost their scent.

Remove petals from newly opened roses and spread on cheesecloth or paper. Leave for two weeks in a warm, dry place — away from the sun. Then mix with a fixative, such as orris root or gum benzoin to capture the volatile oils of blooms and prevent them from evaporating. The fixative in powder form is available from the prescription department of most drug stores.

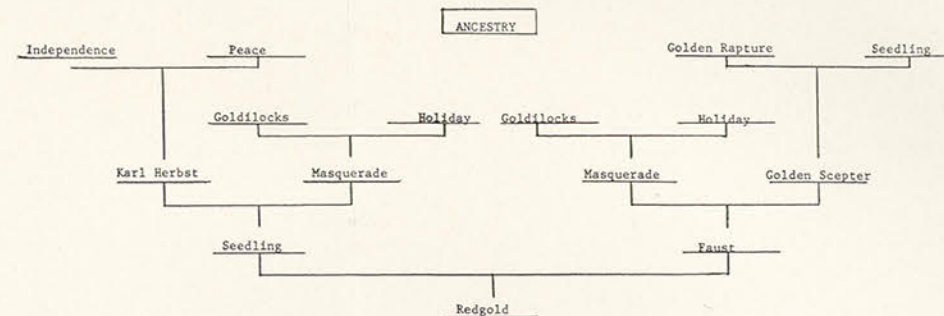
A simple recipe for a pot pourri blend of fragrance is as follows: Use one quart of cured rose petals, ½ teaspoon each of crushed nutmeg, crushed cinnamon, crushed cloves, crushed allspice, 1 cup dried thyme, ¼ cup powdered benzoin and 1 gram rose oil, if desired. Mix all ingredients well and store in an airtight container in a dark place for about two months. The mixture will then be ready to use and can be transferred to decorative jars.

These directions were given by Bonnie Roberson in the 1962 American Rose Annual.

Spraying Your Roses

An all-purpose rose spray for insects and diseases should be used once every ten days from the time the leaf length is about two inches long. We would recommend spraying rather than dusting because the coverage is usually better. Dust may be used, though it should be applied early in the morning, or in the evening when dew is on the plants. Otherwise it will not stick.

—From the Bulletin of the Jackson County, Missouri, Rose Society.



The Ancestry Chart of the new AARS 1971 award winning floribunda, REDGOLD, as reported by Pat Dickson of Ireland, the hybridizer, shows some outstanding parentage for this rose. With ancestors like Peace, Golden Rapture, Masquerade and Golden Sceptre, it is no wonder this new hybrid won All-America honors.

P-5 Glossy Photo or 3 Col. Mat

Cutting Roses for Delectable Roses — To Eat

Cutting roses for indoor use is an art, but it helps if you remember that cutting a flower for a bouquet or removing spent blooms really amounts to pruning. When pruning is correctly done, the result is healthier and larger plants and increased flower production.

When cutting off a flower, never leave a stub and never twist off a faded bloom because, in either case, the stem dies back to the first node. The leaving of a jagged wound is exposing the injured plant tissue to fungus which are ever present and waiting to grow in the wound. Roses may be cut with fairly long stems from established plants, as this keeps the bushes low and well branched and eliminates the tendency for tall, leggy plants that result when flowers are cut with short stems from the top of the plant. Only roses with short stems should be cut from new plants the first year they are set out.

Do not cut too severely on any rose bush, however, because the loss of a really large quantity of foliage puts a strain on the plant. It takes from five to seven leaves (not leaflets) to manufacture enough food for each bloom, so leave the plant enough foliage to grow and produce blooms in a normal manner.

Here are some recipes for making jam, syrup and cookies from the petals or seed hips (fruit) of roses. You may cut the blossoms in any stage, right up to the fully opened flower, but three-quarter open to just fully opened blooms are best. Be sure there is no spray residue on the petals or hips.

ROSE RUGOSA JAM

Wash 2 cups of Rosa rugosa hips thoroughly. Then cut out the black calyx. Cook hips in 2 cups of water until tender. Mash fruit while cooking. Push pulp through a fine sieve. Add 1 cup of sugar to each cup of pulp, then cook until the pulp thickens to jam consistency.

HONEY OF ROSES

Cut heels of ½ lb. sweet scented roses. Mash with wooden masher. Boil 15 minutes in 1 pint of water; add 2 lbs. of strained honey and boil down to a thick syrup. Pour into scalded jars and seal.

SYRUP OF ROSES

Use fresh rose petals from which the slightly bitter tasting base has been cut off. Simmer, covered, for one half hour in small amount of water and half cup brown sugar. Strain and use as needed. Looks like wine and tastes the way roses smell.

Jean Hersey

ROSE AND CARAWAY COOKIES

½ lb. butter or oleo	4 c. sifted flour
½ lb. sugar	3 T. caraway seed
½ grated nutmeg	2 T. rose syrup

Rub butter into sugar; add flour, spices and rose syrup; moisten to stiff dough with water. Cover mixture and let stand in refrigerator for several hours. Roll into ¼ inch sheet. Cut with cookie cutter. Bake in buttered pan in hot oven.

The Life of Roses

Hybrid Perpetual, Moss, Polyantha, Brier, Rugosa and Hybrid Climbing Roses as a rule are good for a generation or more of life, once they are planted. With the now so popular Hybrid Tea and Floribunda roses, no matter how carefully protected, some losses must be expected every season. These losses sometimes occur in apparently strong, vigorous plants for which it is difficult to assign any reason why they should not have survived. However, even with such occasional losses, we strongly recommend the planting of Hybrid Tea and Floribunda roses. They not only produce flowers of highest quality and the most varied and pleasing colors, but they also give an abundance of bloom continuously from early in the summer until stopped by the severe frosts of autumn. The occasional loss of a few plants amounts to nothing compared with the greater pleasure obtained from these types in the high quality and abundance of flowers that they furnish.

—From the Bulletin of the Jackson County, Missouri, Rose Society.

ALL MATERIAL ON
THIS PAGE
FOR RELEASE JUNE 6, 1970
PLEASE OBSERVE

Name	See	Seen
SBH	✓	✓
Beany	✓	✓
Tom		
Dick	✓	✓
G.O.		
Earl		
Van		
Cor		
Cust. Ser.		
Rose		
Plant		
Ship		
Acct.		
Return to:		
File		
10M-7-69T		

e in the News

Chesapeake Bay Cruise
Oxford on the eastern
land, sponsored by the
use and Garden Pilgrim-
Ship, Belvedere Hotel, Balti-
Acct. 202.

Delaware Valley Iris
showrooms of the Penn-
sylvanian Society, 325
Independence National
House and Garden

benefit of the Institute of

Rehabilitation Medicine of New York University Medical Center. A unique feature this year will be the highlighting of homes and gardens in that lovely area of New York State—Dutchess County. Receipts from the tour will help make possible a complete therapeutic recreation program an integral part of the total rehabilitation of disabled children and adults. For further information contact: Mrs. Edna Blankfort at the Institute, 400 East 34th Street, New York, New York 10016; or phone: OR 9-3200, Ext. 2006.

May 29. Triennial Meeting of the Appalachian Trail Conference, at Shippensburg State College, Shippensburg, Pennsylvania.

May 30-June 2. Golden Jubilee Convention of the American Iris Society, Statler Hilton Hotel, New York, N.Y. For information contact: Clifford W. Benson, AIS Executive Secretary, 2315 Tower Grove Boulevard, St. Louis, Missouri 63110.

June 11-July 1. Tour of famous houses and gardens in England, Scotland, and Ireland under the auspice of the Pennsylvania Horticulture Society. Detailed itineraries and reservation forms are available from the Society, 325 Walnut Street, Philadelphia, Pa. 19106.

June 13. Annual Rose Show of the Philadelphia Rose Society, at the showrooms of the Pennsylvania Horticultural Society.

June 20-22. Annual Spring Meeting of American Rose Society, Denver, Colorado. For information contact the Society, 4048 Roselea Place, Columbus, Ohio 43214.

June 27-28. Annual Lily Show of the Middle Atlantic Regional Lily Group at the Showrooms of the Pennsylvania Horticulture Society.

JAN 25 1971

PLANT A ROSE FOR PEACE

Bennie:
For your files
in case you
missed this

The Peace Rose is probably the most famous of all modern roses, and its history is just as fascinating as the rose itself. Developed at Cap d'Antibes, France, by the late Francis Meilland and his father, a few eyes were budded for the first time during the summer of 1936. It was known simply as No. 3-35-40. By 1939 the plant was ready for export, and during the summer of that year buds were sent to Germany, Italy, and the United States.

On September 3, 1939, war broke out, and immediately all communications with Germany ceased. After the invasion of June, 1940, the same thing happened with Italy, and eventually with England and the United States.

The German firm distributing rose 3-35-40 put it on sale under the name 'Gloria Dei.' The Italian firm sold it under the name 'Gioia.' In France the hybridizer dedicated it to the memory of his mother, Mme. A. Meilland, who had died a few years previously.

In the United States it was cultivated by the Conard-Pyle Co. and called 'PEACE,' to symbolize the hope uppermost in the hearts of men after five long years of war. It was named and introduced, by strange coincidence, on April 29th, 1945.

Shortly after this, the first meeting of the United Nations took place in San Francisco. In the apartment of the head of each of the forty-nine delegations was placed a small vase with a single rose, 'PEACE,' accompanied by this message:

"This is the Peace Rose which was christened at the Pacific Rose Society Exhibition in Pasadena on the day Berlin fell. We hope the Peace Rose will influence Men's thoughts for everlasting WORLD PEACE."

To commemorate the twenty-fifth anniversary of the United Nations the Rotary Club of Montreal-Lakeshore, Canada, in co-operation with the United Nations Association in Canada, is sponsoring a Peace Rose Project. They plan to use the Peace Rose as an

emblem of Peace all over the world. Anyone who has a garden—schools, churches, businesses, individuals—is invited to plant a Peace Rose Bed, or just one plant during the year 1970 as a gesture of Peace.

While the Peace Rose Project had its beginning in Canada, the sponsors hope and expect that "other countries will follow Canada's example so that the symbolic poppies of Flanders Fields may live again in the form of a 'Peace Rose,' spreading the gospel of Peace throughout the entire world."

Royalties from the sale of Peace Rose Project plants will go to the United Nations Association in Canada. Thirty per cent of the funds will be retained by the Association for the promotion of its educational and informational services in Canada. The remainder of the funds will be shared by the Canadian UNICEF Committee and the UNESCO Gift Coupon Program. This money will be used overseas in developing countries to provide services to children and educational facilities.

Just as the Peace Roses presented to the original delegation heads at the United Nations bore a message of PEACE, so will the Peace Rose in 1970. Each plant ordered through the Peace Rose Project will have a special tag with the Prayer of Peace by St. Francis of Assisi:

LORD,
Make me an instrument of your peace.
Where there is hatred, let me sow love;
Where there is injury, pardon;
Where there is doubt, faith;
Where there is despair, hope;
Where there is darkness, light, and
Where there is sadness, joy.

O, Divine Master,
Grant that I may not so much
Seek to be consoled as to console;
To be understood as to understand;
To be loved as to love;

For it is in giving that we receive;
It is in pardoning that we are pardoned;
And it is in dying that we are born
Into eternal life.

JAN 25 1971

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For your files
in case you
missed this.*

PLANT A ROSE FOR PEACE

May 23-24. Chesapeake Bay Cruise and Tour of Oxford on the eastern shore of Maryland, sponsored by the Maryland House and Garden Pilgrimage, Room 223, Belvedere Hotel, Baltimore, Md. 21202.

May 24. Annual Delaware Valley Iris Show, at the showrooms of the Pennsylvania Horticultural Society, 325 Walnut Street, Independence National Historical Park, Philadelphia, Pa.

May 26. Annual House and Garden Tour for the benefit of the Institute of Rehabilitation Medicine of New York University Medical Center. A unique feature this year will be the highlighting of homes and gardens in that lovely area of New York State—Dutchess County. Receipts from the tour will help make possible a complete therapeutic recreation program an integral part of the total rehabilitation of disabled children and adults. For further information contact: Mrs. Edna Blankfort at the Institute, 400 East 34th Street, New York, New York 10016; or phone: OR 9-3200, Ext. 2006.

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Plants and People in the News

STUDY EFFECT OF FUNGAL PRODUCT ON PLANT GROWTH

Dr. Neil C. Turner of the Connecticut Agricultural Experiment Station and Dr. Antonio Graniti of the Istituto di Patologia Vegetale in Bari, Italy, have found that fusicoccin opens the stomata or leaf pores in dogwood, bean, tobacco, sorghum, alfalfa, and other plants. Fusicoccin is a substance produced by *Fusicoccum amygdali*, the fungus which causes canker disease of almonds and peaches. Leaf wilt is a symptom of the disease.

The investigators claim that fusicoccin causes the stomata to open so wide that the water loss through them is greater than the conducting capacity of their stems. The leaves wilt even when their stems are in water.

Dr. Turner says that his preliminary studies have shown that fusicoccin wilts alfalfa hay, dramatically speeding the drying. He also points out that fusicoccin opens the way for new studies of plant growth.

When plants grow slowly because of low light levels, he suggests, fusicoccin might increase the rate of photosynthesis, hence growth, by opening the portals in leaves for the carbon dioxide-oxygen exchange of the process. This may be important in greenhouses where the carbon dioxide level can be artificially increased and water loss controlled.

PENN STATE CORRESPONDENCE COURSES

The Pennsylvania State University is offering two correspondence courses of unusual interest. The first, on basic insect science, is designed for beginners in entomology. There are lessons on identification, classification, life cycles, control of pests, and characteristics of certain interesting insects. The lesson on collecting is well illustrated showing the needed equipment and methods.

The second course, on home orch-

ards, is suggested for those with an acre or two of unused, fertile soil. It is fun to eat fruit grown on your own trees, but yields of high quality fruit take good care and management.

To enroll in either course send your name and address to Box 5000, University Park, Pennsylvania 16802. The fee for Insect Science is \$3.45, and for Home Orchard \$2.65. Make checks payable to The Pennsylvania State University. There are no other charges, and a complete course copy comes to you by mail.

HANDBOOK ON FERNS

The Brooklyn Botanic Garden has published a *Handbook on Ferns* that fills a long-felt need for a popular guide to the culture and use of ferns. Home owners faced with the baffling problem of what to grow in the shade of trees or buildings will find the perfect answer in ferns.

Sixteen authorities share their experiences in this 78-page book, edited by Helen S. Hull. It is richly illustrated with nearly 60 halftone cuts and an insert of nine full color plates. There is an extensive guide and bibliography to literature for fern growers including basic books for the home gardener's library. A plant buyer's guide lists sources of plants for gardens. Copies of the Fern Handbook are available for \$1.25 each from the Brooklyn Botanic Garden, Brooklyn, N. Y. 11225.

CORNELL STUDENT WINS AWARD

Choong Lee, a graduate student in the department of floriculture and ornamental horticulture at the N.Y. State College of Agriculture, Cornell, received the 1969 award of the International Plant Propagators Society.

Given for the best graduate student research paper during 1969, the award consists of a plaque and a \$100 cash prize. Lee was recognized for his contribution to plant propagation by establishing a positive link between the

rooting capacity of rhododendron cuttings and levels of certain new plant substances during propagation. In his award-winning research conducted at the University of Rhode Island, Lee found that four hormone-like substances that are yet to be identified apparently play a major part in promoting the rooting of cuttings.

A native of Seoul, Korea, Lee received his master of science degree from the University of Rhode Island in 1968.

He now is working toward his Ph.D. at Cornell. Lee is the second Cornell student to receive the award since it was established three years ago. The first winner was John A. Wott, now on the staff of Purdue University. Wott, like Lee, was a student of Prof. Harold B. Tukey, Jr. at Cornell.

DATES TO REMEMBER

April 24-25. The Second Conference of Botanical and Horticultural Libraries will be held at the Hunt Botanical Library in Pittsburg, Pa. Contact Mrs. Muriel C. Crossman, Librarian, Massachusetts Horticultural Society, 300 Massachusetts Avenue, Boston, Mass. 02115 for further information.

May 1-10. Annual House Tour sponsored by Maryland House and Garden Pilgrimage, Room 223 Belvedere Hotel, Baltimore, Md. 21202.

May 5. The Torrey Botanical Club lecture by Dr. Harry Mussell, Boyce Thompson Institute, Observations on Several Parameters Affecting Virulence in Cotton Isolates of *Verticillium Alboatrum*. Room 902 Schermerhorn Hall, Columbia University at 8:00 p.m.

May 8-14. Garden Pilgrimage to Bermuda sponsored by the Horticultural Society of New York, 128 West 58th St., New York, N.Y. 10019.

May 19. The Torrey Botanical Club lecture by Dr. George Slate, N.Y. State Agricultural Experiment Station, on Problems in Lily Breeding. Museum Building, New York Botanical Garden, 8:00 p.m.

May 22-24. Third Annual Meeting of the American Magnolia Society in Mobile, Alabama. For information write the secretary, Philip J. Savage, Jr., 2150 Woodward Avenue, Bloomfield Hills, Mich.



88 OSSIAN ST. • DANSVILLE, N. Y. 14437



Mr. Sidney B. Hutton Jr.
President, Conard-Pyle Co.
West Grove, PENNSYLVANIA 19390

"THE PIONEER IN FOLIAR FEEDING"

October 14, 1963

LIST OF THE MEILLAND ROSES OF IMPORTANCE WHICH HAVE PEACE
AS A PARENT

I

a	BELLE BLONDE	<u>PEACE</u> x LORRAINE
a	BETTINA	<u>PEACE</u> x (Mme. Jos. Perraud x Demain)
	CANNES FESTIVAL	<u>PEACE</u> x Princesse Beatrice
X	CAPRICE (Lady Eve Price)	<u>PEACE</u> x FANTASTIQUE
X	CONFIDENCE	<u>PEACE</u> x (Joanna Hill x <u>Peace</u>)
	COPPELIA	<u>PEACE</u> x EUROPA
X	DAY OF TRIUMPH (Rendezvous)	<u>PEACE</u> x EUROPA
X	EDEN ROSE	<u>PEACE</u> x SIGNORA
a	GRACE DE MONACO	<u>PEACE</u> x (Joanna Hill x <u>Peace</u>) -Michele Meilland-
a	GRAND GALA	<u>PEACE</u> x INDEPENDENCE
X	GRANDMERE JENNY	<u>PEACE</u> x (Julien Potin x Sensation)
	MAHINA	<u>PEACE</u> x FRED EDMUNDS -L'Arlesienne-
a	MARCELLE GRET	<u>PEACE</u> x PRINCESSE BEATRICE
a	MICHELE MEILLAND	<u>PEACE</u> x Joanna Hill
	MITZY	<u>PEACE</u> x (Mme. J. Perraud x (Mrs. DuPont x Mrs. John Laing)
	MME. RENE COTY	<u>PEACE</u> x BRAZIL
a	MONTE CARLO	<u>PEACE</u> x Unnamed Seedling
a	NEW STYLE	(Happiness x Independence) x <u>PEACE</u>
	PAULETTE	<u>PEACE</u> x SIGNORA
	PREMIER BAL	(Fantastique x Caprice) x <u>PEACE</u>
X	SUN KING	<u>PEACE</u> x Duchesse de Talleyrand
X	SUZON LOTTHE	<u>PEACE</u> x (Signora x Mrs. John Laing)
X	SYMPHONIE	<u>PEACE</u> x (Signora x Mrs. John Laing)
a	TAHITI	<u>PEACE</u> x SIGNORA
a	TZIGANE	<u>PEACE</u> x J.B. Meilland

X Varieties in commerce in the U.S.

a Varieties of importance in commerce in Europe

October 14, 1963

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	MME. RENE COTY	<u>PEACE</u> x BRAZIL
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X Varieties in commerce in the U.S.

a Varieties of importance in commerce in Europe

I (continued)

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	PAULETTE	<u>PEACE</u> X SIGNORA
	PREMIER BAL	(Fantastique x Caprice) x <u>PEACE</u>
X	SUN KING	<u>PEACE</u> X Duchesse de Talleyrand
X	SUZON LOTHE	<u>PEACE</u> X (Signora x Mrs. John Laing)
X	SYMPHONIE	<u>PEACE</u> X (Signora X Mrs. John Laing)
a	TAHITI	<u>PEACE</u> X SIGNORA
a	TZIGANE	<u>PEACE</u> X J.B. Meilland

October 14, 1963

III

INTRODUCTIONS FROM SOME OTHER HYBRIDIZERS THAT HAVE
INCLUDED PEACE IN THEIR ANCESTRY

ABRAMS Ossining, N.Y.	X THE DUKE	Applause x <u>Peace</u>
BOERNER J&P U.S.A	X PEACEFUL	Seedling x <u>Peace</u>
CROIX France	ASTREE	<u>Peace</u> x Blanche Mallerin
CAMPRUBI Spain	ARMINDA	<u>Peace</u> x (<u>Peace</u> x (Signora x Mrs. J. Laing))
CROLL Dundee, Scotland	SARAH ARNOT	Ena Harkness x <u>Peace</u>
COX Slough, England	a CORONATION GOLD	Signora x <u>Peace</u>
COMBE Grenoble, France	IVRESSE	<u>Peace</u> x Spectacular
BORDAS Spain	MARIA THERESA BORDAS	Sensation x <u>Peace</u>
DE RUITER Holland	a DISCOVERY	<u>Peace</u> x (Christopher Stone x polyantha seedling)
DOT Spain	a FRIVOLITE	<u>Peace</u> x Catalonia
	MARQUESA de Casa VALDES	<u>Peace</u> x Poinsettia
	TANGER	Condessa Sastago x <u>Peace</u>
	CONDESA DE MAYALDE	<u>Peace</u> x Flambee
	BALEARES	<u>Peace</u> x Flambee

- X Varieties in commerce in the U.S.
a Varieties of importance and in commerce in Europe

III (continued)

DORIEUX France	CAFOUGNETTE	Happiness x <u>Peace</u>
FISHER Woburn, Mass.	X STERLING SILVER	Seedling x <u>Peace</u>
	X TAPESTRY	<u>Peace</u> x Mission Bells
GIACOMASSO Turin, Italy	PER CHE SI?	<u>Peace</u> x Crimson Glory
	ARA PACIS	<u>Peace</u> x Marguerite Chambard
GAUJARD France	AMBRE	<u>Peace</u> x seedling
	ATLANTIC	<u>Peace</u> x seedling
	ANDRE PERNET	<u>Peace</u> x Mme. Eli Dupraz
	BADINAGE	<u>Peace</u> x seedling
	CLUB	<u>Peace</u> x Opera
	COCOTTE	<u>Peace</u> x seedling
	DEESSE	<u>Peace</u> x seedling
	DOMINO	<u>Peace</u> x seedling
	DUO	<u>Peace</u> x seedling
	JOLIE PRINCESSE	<u>Peace</u> x Independence
	X MISS FRANCE	<u>Peace</u> x Independence
	MME. LEON CUNY	<u>Peace</u> x seedling
	MME..PIJMECOQ	<u>Peace</u> x seedling
	MONTMARTE	<u>Peace</u> x seedling
	MONIROUGE	<u>Peace</u> x Alain seedling

III (continued)

GAUJARD	PASSION	<u>Peace</u> x Alain
	X ROSE GAUJARD	<u>Peace</u> x Opera seedling
	VIOLA	<u>Peace</u> seedling x Orange Triumph
HEMERAY-AUBERT Orleans, France	a COUPE de FOUDRE	(<u>Peace</u> x Independence) x Oiseau de Feu
W. KORDES Germany	HUGO SCHLOOSER	World's Fair x <u>Peace</u>
	X KARL HERBST	Independence x <u>Peace</u>
	X KORDES PERFECTA	Golden Scepter (Independence x Peace) Karl Herbst
	LADY NAYSIE ROBINSON	Seedling x <u>Peace</u>
	a BERLIN	Eva x <u>Peace</u>
LINDQUIST California	X TEXAN	Improved Lafayette x <u>Peace</u>
LAPERRIERE France	BANCO	<u>Peace</u> x Unnamed seedling
LETTS England	a ANNE LETTS	<u>Peace</u> x Charles Gregory
	LONDON TOWN	<u>Peace</u> x Charles Gregory
LENS Belgium	MARIGOLD	Peace x Mme. Joseph Perraud
	CHATELAINE	(<u>Peace</u> x seedling) x Fashion
MASON New Zealand	MAORILANDER	Crimson Glory x Peace
MUNNE Spain	MARJA ANTONIA CAMPRUBI	Peace x Rosa Munne

III (continued)

MALLERIN France	X SIMONE	(Peace x Independence) x Grey Pearl
	ALFREDO MOREIRA DE SILVA	Dr. Kirk x <u>Peace</u>
ROBINSON H. England	a MY LADY	Seedling x Peace
	DAVID GOLD	Shot Silk x Peace
MOREIRA DA SILVA Portugal	ALMIRANTE AMERICOTOMAS	Peace x Crimson Glory
	AVO ALBINA	Peace x Crimson Glory
	DR. OLIVERA SALAZAR	Mme. Marie Curie x Peace
	GAIATA	Boudoir x Peace
	GRACIOSA	Branca x Peace
	MAGESTADE	Mme. Marie Curie x Peace
	PADRE CRUZ	Branca x Peace
	PROF. COSTA LEITE	Peace x Julien Potin
MOTOSE N.Y.	SEMIRAMIS	Capistrano x (Peace x Crimson Glory)
SHEPHERD Ohio	FLIRTATION	Fiesta x Peace
TANTAU Germany	a HALALI	MARCHENLAND x PEACE
VERSCHUREN Holland	a PINK LUSTRE	<u>Peace</u> x Dame Edith Helen

October 14, 1963

II

LIST OF THE MEILLAND ROSES OF IMPORTANCE WHICH HAVE PEACE IN THEIR ANCESTRY AS A GRANDPARENT OR IN WHICH PEACE APPEARED FURTHER BACK IN THEIR ANCESTRY

- a ALLEGRO (Happiness x Independence) x (Peace x Floradora) x Grandmere Jenny)
- SORAYA-
- X BANZAI Radar x (Peace x Fantastique)
- CAPRICE - (Lady Eve Price)
- a CARINA ((Virgo x Peace) x Virgo) x (Happiness x Independence)
-WHITE KNIGHT-
(Message)
- X CHRISTIAN DIOR (Independence x Happiness) x (Peace x Happiness)
- X GOLDEN GIRL (Joanna Hill x Eclipse) x (Joanna Hill x Peace)
-Michele Meilland-
- X LADY ELGIN (Thais) Mme. Kriloff x (Peace x Geneve)
- X PINK PEACE (Peace x Monique) x (Peace x Mrs. John Laing)
- a SABRINA (Peace x Independence) x ((Fantastique x Caprice) x Peace)
-Premier Bal-
- X SUNLIGHT (Eclipse x Ophelia) x (Peace x unnamed seedling)
- Monte Carlo-
- a SORAYA (Peace x Floradora) x Grandmere Jenny
- X VASSAR CENTANNIAL Helene de Roumanie x (Peace x Michele Meilland)
-Confidence-
- X WHITE KNIGHT (Virgo x Peace) x Virgo
(Message)
- X TORCH SONG (Peace x Floradora) x Grandmere Jenny

X Varieties in commerce in U.S.

a Varieties of importance and in commerce in Europe

CORRESPONDENCE

Name	See	Seen
SBH	✓	✓
Beany	✓	✓
J.F.L.		
T.M.Y.		
J.M.		
G.O.	✓	✓
Dick		
H.J.J.		
Geo. H.		
Niels		
Mac	✓	✓
Return to:	MSB	
File		

AUG 22 1963

O. L. WEEKS

Swim and Weeks

PLANT BREEDERS

4759 PHILADELPHIA
CHINO, CALIFORNIA

August 19, 1963

*Re - Children of Peace Story*Sidney B. Hutton
Conard-Pyle Company
t Grove, Pennsylvania

Dear Sidney:

I presume that Peace has been used as a parent by almost, if not all, rose breeders in the past 15 years. I used it only one season at Armstrong Nurseries and the only introduction they made from this use was GARDEN PARTY. I imagine you know that this was from crossing Charlotte Armstrong X Peace.

Since we formed SWIM AND WEEKS, we have used Peace a great deal - nearly every year. So far the only tangible result of this use is the introduction of ROYAL HIGHNESS by C-P. As you know this was from a cross of Virgo X Peace.

We are testing seedlings that involve Peace either as a parent or grandparent every year. We think some of them have promise but we have yet to prove it. On the basis of the experience we have had with it so far, it would be our guess that this rose would make a great contribution to the science of rose breeding but not primarily as a direct parent, at least not to the extent that such varieties as Crimson Glory and Charlotte Armstrong have contributed as direct parents.

On the other hand we think that Peace may eventually prove to be important in the field of florist rose breeding. At this point, however, this is just speculation.

Sidney, I have the opinion that, next to the Meillands, Kordes has made the most effective use of Peace.

Hope this is of some help to you.

Sincerely,

SWIM AND WEEKS

Herb

H. C. Swim

*P.S. You are free to quote me, if any**Shirley Fair
Copy to
Britt**this is worth quoting
H.C.*

AUG 22 1963

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THE CREATION of NEW ROSES

If ever there exists a wild bush whose type and habit are most familiar to amateurs of country walks, it is indeed that which, here and there, along the hedges, on the moors and in the thickets, rises into view - the graceful sweetbrier of Spring, this untamed wild flower of which it can really be said that it is quite "uncultivated".

It is a hermaphrodite plant, that is to say that the flowers carry, at the same time, the reproductive organs of both sexes.

In the bloom of the sweetbrier can be found the male organ, or stamens, whose anthers contain the pollen, and the female organs, or pistils, whose stigmas receive and hold this pollen.

Once in contact with a stigma, the grain of pollen does not take long to germinate, and to develop. It then takes on the aspect of a thread and, little by little, goes through the pollinic canal in order to fertilize the corresponding ovule, inside of the receptacle. The fertilized ovules will, later on, form seeds that are found inside the fruits.

From this natural pollination, or self-pollination, which takes place when the stamens put the pollen in contact with the pistils, fruits are formed which will come loose at maturity and which, at random and wherever they fall will, by becoming rotten, free the seeds which rodents are fond of, but of which Nature will always preserve a certain number to ensure perpetuation of the species. That is why one can often notice, near some old stump of wild-rose, tiny plants issued from seeds which, being more or less buried under moss and covered up with humus, were placed in the most favorable conditions to germinate.

So that, through the ages, the modest Brier reproduced itself unceasingly.

She is the Daughter of Nature and remote ancestor of all our fine modern roses whose form, texture and colors seem sometimes to reach the summum of perfection

and beauty, which owe their evolution to the more and more precise and evident intervention of the hand of Man, and which occupy today such an important place in the ornamentation of our parks, our gardens and our homes.

For more than a century, Rose amateurs have not planted any more wild species in their gardens -- except as curiosities. On the other hand, the roses grown and sought after nowadays are plants which have been created by artificial processes, i.e. foreign to the usual general behavior of the species. They are distinguished from the wild roses in that they have not, as the latter have, the ability of coming into the world and reproducing themselves alone. Because of the great number of crosses which were made in order to originate them, they are very far from their original species and, from the genetic point of view, they are extremely complex hybrids. What they have gained in beauty and perfection through culture, has transformed them so much that they have become totally unable to ensure their perpetuation without the help of the hand of Man. It is somewhat as if Nature was taking her revenge by not herself reproducing these Roses which Man obtained from her by force.

There is no example, in fact, of any amateur having noticed in his garden that a rose of a horticultural variety had ever given birth to young rose-plants because of the fact that its seeds had been scattered on the ground. There is no example either that such a rose-plant had divided itself, in a bed or in a border, to form other plants of the same variety.

No more is it in the woods that have been found, or that we run the risk of finding, some "Souvenir de la Malmaison", "Paul Neyron" or "La France", for example, varieties which the Horticultural Industry has been using for over

a hundred years, and even admitting that the wild rose of the woods may have been pollinized by an insect carrying some pollen of the flower of an horticultural variety of rose, or else that this operation may have been done deliberately by the hand of Man, nothing else would have resulted but young wild rose-plants : this is likely to startle non-initiated persons, but geneticists are well aware of it.

Thus, a difference can be made between wild roses and horticultural (or cultivated) rose varieties.

Wild roses belong to Nature; their reproduction does not require the intervention of the hand of Man; they are products of Nature and their classification concerns Botany unconditionally.

On the other hand, the horticultural rose varieties belong to Industry : their reproduction requires the intervention of the hand of Man: they are natural products, that is to say they were obtained from Nature by Man's industry and their classification concerns only the Nomenclature of cultivated plants.

The working out, by Man, of certain processes foreign to the normal behavior of the species has proved fruitful. Since these roses which, marking an era, were the delight of our grand-mothers, a long road has been travelled. It leads us to-day to this great diversity existing in the use of new varieties for the ornamentation of parks, of home and public gardens :

- rock gardens, which include the planting of certain varieties of particular growth, especially those with diverging branches;
- Miniature roses, some of which do not grow over 15 to 20 centimeters;
- hedges, of different heights, always in bloom or ready to bloom again;
- groups of rose-plants with one flower to the stem, of strong growth; also

with several flowers to one stem, i.e. blooming in clusters, consequently a prolonged and perhaps more spectacular blooming on the whole ;

- outside flower containers, flower-beds of mass effect which are the pride of our home and public rose-gardens;
- tree-roses used in a border, with a planting a dwarf roses;
- weeping roses, isolated in lawns or combined with others on pillars;
- ornamentation of gates, enclosures, pergolas, of big surfaces and also, sometimes, whimsical decorations of a certain originality permitting, for example, this remarkable Gigantea , which in the course of one year can send out extremely vigorous shoots, to climb to the top of some centenarian olive-tree.

But it is because of the needs of Horticultural Industry, always greater and more exacting, that Rose originators have had, more than ever, to strive to develop or to bring on certain physical and biological characters in their creations, so that on the whole -- plant and flower -- a new technical effect may result, capable of interesting the users at every stage of production and commercialization, especially as far as the cut-flower industry is concerned. The technical effect sought after will bear, for example :

- on a certain ease of propagation, in order to obtain a maximum production in the nurseries;
- on good plant resistance to diseases, such as Marsonia Rosea, blackspot, mildew, rust, powdery mildew.
- on a no less good resistance to Spring and Winter frosts;
- on productivity, as it is obvious that the grower underglass would not be interested in a new variety that could only produce 5 or 6 blooms a season, whereas, with an older variety, he could get 8 or 9.

- on the ability to bloom again, as it is agreeable to see that, once the flower is faded, some eyes of the main stem develop rapidly and bring forth new flowering stems.
- on how the flower stands up to packing : blooms, however fine, that would arrive with crumpled or withered petals, would not have a chance of being favored by the florist;
- on the flower resistance to weather conditions also. There are some flowers which are real marvels in dry weather but which cannot stand the least rain without showing some alterations, or else become pigmented and spotted under the rays of too hot a sun.
- lastly, the technical effect will also bear on the flower longevity, and on the persistence of the color. In this particular case, experiments have become more and more necessary as the factor "longevity" especially is a very important one. As far as we are concerned, we make observations in all seasons on the capability of absorbing water through the stems, for example, as it is said of certain roses that "they do not drink", so that they fade much more quickly than others; also on the rapidity of the opening and the dropping of the petals.

You will notice, on this picture, that the last vase at the left, as well as the second vase starting from the right, contain stems whose flowers have not yet lost a petal, whereas the others are already completely devoid of them. Doubtless the few professionals or amateurs who formerly engaged in the creation of Roses, were not faced with such absolute criterions. The growers, producers, florists and amateurs were less exacting; their needs were smaller and the acquisition or the keeping up of certain markets were less imperative than they are nowadays.

The signal of a new technique, with means going far beyond those that were previously in use, started to be felt as early as 1930, that is to say from the day when the United States instituted the Plant Patent Act.

From then on, the research for new Roses very quickly took on quite another aspect. The immense American market of rose-plants and roses became, all of a sudden, the stake of close competition between the originators of the whole world. Having the benefit of Protection, and stimulated by it, the American originators redoubled their efforts; their number grew rapidly and competition became such that specialized establishments were seen to be erected, provided with important budgets, and entirely devoted to Research work.

Later on, substantial articles praising the creation of a new era in roses, were published in periodicals used by professional and even by the public at large.

Could the European originators then remain inactive? In fact, if they wished to survive, there was no alternative for them but to equip themselves to face the world market.

You will thus be able to see in what way, as far as we are concerned, we became organized to that end.

Our Establishment is at Cap d'Antibes. Our installation spread over about twelve acres, and the greenhouses cover a surface of 24,000 square meters. Besides those where our experiments for forcing roses take place, some of our greenhouses are laid out following a technique specially adapted to the system of culture without soil, which we utilize for the breeding of our seedlings.

It is in this establishment that we do, on a very large scale, either in the greenhouses or out-of-doors, the artificial pollination of Roses, starting

from specially chosen parents. Every year, some 15 to 20,000 flowers are pollinated. It is also there that we study and operate according to the most recent scientific data, with a view to bring about certain vegetative or floral mutations most useful to our researches. That is why we submit certain subjects, or certain portions of subjects, to alkaloid treatments or to the action of certain radiations, especially as regards pollens. From these fecundations done with the help of irradiated pollens, small plants are born which are then carefully examined and compared with standard plants. Later on, some of them will show vegetative and floral anomalies, forming "monsters" whose aspect is a proof of the cellular anarchy and of the vegetative disorder brought about by such treatments.

(explanations will have to be given here, on the aspect of a few monsters as they appear on the screen)

Certain subjects, however, will seem endowed with characters sufficiently peculiar and outstanding to merit a deeper study which will make it possible, some day, to discover a new product capable of interesting the horticultural industry. The blue Rose ? Perhaps. But what a lot of work yet before being able to obtain the purity and stability of such a coloring ! Excellent results have , however, already been obtained with regard to the orange-vermillions, as evidenced by this extraordinary flower whose color is of such luminosity that the eye remains unmistakably dazzled.

But our principal work being, as we said before, connected with the creation of roses born of artificial pollination, we are going to show you, in their consecutive phases, our activities to this end. For a better comprehension of the matter, we have chosen, as an example, a well-defined type of rose. It is our variety MEGER-561, which we have commercialized under the name of "BACCARA".

You will see that the successive operations leading to the creation, then to the commercialization of this variety, have been spread over a period of ten years, i.e. from 1946 to 1955.

In 1946, the creative idea first took place - this intervention of the Mind which precisely discriminates between the work of the originator and that of the horticulturist, such work consisting, for the latter, only in reproducing something already known. Besides, if one considers that originators at present give to their work a more and more scientific orientation, there is no doubt that, just as in the domain of inert matter, the creations or improvements resulting from this work, show the creative idea which led to their realization.

It is therefore in 1946 that we thought of making a crossing which, in view of certain physiological and biological observations made on specially chosen parents, would enable us to create a new rose-plant capable of being, in Horticultural Industry, of an interest superior to that of already known rose-plants.

We foresaw this new rose-plant as belonging to the H.T. class. Its growth would have to be regular and very tall. The plant would have long and strong stems, bearing one bloom each, and be able quickly to develop new ones after cutting. The flower would be of a very luminous geranium-red, color which did not yet exist in roses of the above-mentioned class. Moreover, it would have to have holding and lasting qualities definitely superior to those of previous roses; these qualities depended, among other things, on the firmness of the petals, their number and their arrangement on the crown of the calyx.

The elements of the problem being thus set forth, two parents were chosen; we knew, from experience, that certain characters were capable of combining or of reacting between each other so as to constitute the new physiology of the progeniture whose formation we were going to create.

The variety RIM-1020 "ROUGE MEILLAND (Happiness)" was chosen as female parent, i.e. seed parent and the variety "KORDES SONDERMELDUNG" as male parent. The artificial pollination, starting from these two parents, was carried out both on greenhouse and out-of-door plants, during May and June 1947 and on more than 5000 flowers.

Setting aside for a moment the special case, a part of whose history we have just given you, we are now going to show you on a more general plane, the series of consecutive operations which, starting from the artificial pollination, end up with the realization - or with the failure - of the creative idea of the originator.

Before the opening stage, that is to say before the reproductive organs, such as we saw them in detail in the flower of the sweetbrier, reach their maturity, the flower chosen as seed parent has its petals removed, then its stamens, i.e. the organs carrying undesirable pollen. Twenty-four or forty-eight hours afterwards, when the pistils of the castrated rose have come to maturity, the foreign pollen taken from the male parentRose, then comes to fertilize the female-parent Rose. The marriage is consummated. It will bear fruit. From the fruit, seeds will be obtained whose cells are biologically different from those that would have originated from a natural pollination, as they are the result of the fusion of two cells, each taken from a different parent. Besides, and in any case, we have already

seen that they would have no chance whatever to begin to germinate if they had not been sown under special conditions. They are therefore carefully sown in November of the year they were harvested. Distance apart, depth, soil, sand on top... everything is thought out to ensure the best possible conditions necessary to a good germination.

The following year, i.e. about three months after sowing, the mixed populations artificially formed appear. They are real baby-rose plants which, from the moment they show their first leaves, have to be taken care of constantly, especially in order to help them defend themselves against diseases which the weaker subjects are susceptible to and which risk attacking stronger subjects through contagion.

Little by little, small buds appear which we observe with great attention, all the more so because we can already perceive which one of the two parents asserts, for example, the dominance of its "color" character over that of the other one. But nothing yet, apparently, makes it possible to say which plant will be set aside for the research which will, itself, require further researches, followed by numerous experiments.

A first selection can already be made, which leads to the elimination of all the undesirable subjects.

When they reach the stage of development where the problem of their "vital space" has to be resolved, the leaves are taken off the young rose-plants which are then uprooted and replanted in the benches which we use for growing them in a liquid nutrient solution. These benches are made of cement and their inner surface is covered with an asphalt emulsion which, at the same time as it makes them water-tight, prevents any exchange of ions between the calcareous elements

of the cement and the acid elements of the nutrient solution. The benches are filled in with siliceous sand of a specially calibrated granulation, carefully washed beforehand, so as to avoid the presence of organic matter whose decomposition would entail the alteration of the nutrient solution which will pass through the sand. This solution contains a dozen elements, properly apportioned; it has to be analyzed periodically and its pH checked.

In comparison with cultivation in soil, this system has, for such delicate plants, the advantage of cutting down the risks of ravage or destruction caused by insects, virus, diseases and at the same time as it avoids weeding and hoeing, it solves, for us, the question of rotation of crops.

Such a regimen suits them perfectly well, as testified by their growth and exceptional vigor, as well as by the development of their root system, after three years of growing in this medium. Moreover, one of the great advantages of this method of cultivation is that similar results in the open air and in ordinary soil would be very difficult to be attained in the same length of time.

Let us come back now to our young seedlings and let us say that one year will elapse from the time of their transplantation before they reach a sufficient development and before their characters may be studied usefully. The subjects which seem to evolve as was foreseen, are then carefully marked and references noted. Those that do not give a satisfactory solution to the problem of the research are destroyed unmercifully.

During the second year, the consecutive eliminations will have reduced considerably the number of the subjects under study to such an extent that, in certain combinations, none will be left. From this we conclude that Nature does not let herself be violated as easily as might be thought; that she allows but very little at a time, and that we will have to direct our researches in

a different way if we wish to succeed in mastering Her.

At the end of the second year of selective study, and with a view to fully expand the characters noted in the plants that have been kept, as also to be sure of the stability of these characters, "eyes" are taken from these plants, to be grafted on appropriate understocks. These understocks are, in fact, specimens of the young wild roses we talked about at the beginning of the projection of our film. Planted out in the test gardens where our experiments take place, they will be grafted by means of an "eye" taken on each of the said plants that have been kept. Their strong and hardy root-system will permit this "eye" to develop and to form, after their own branches have been cut down, plants of perfect vitality, very hardy, and which will then assume the aspect of real, marketable rose-plants, that is to say of "industrial plants". The following year, the systematic study of their physical and biological characters will gradually lead to the elimination of all the grafted plants, with the exception of one which will fulfill the requirements of the research. From then on, the characters and properties of the new industrial plant so obtained will be transmissible by agamic means - also called "asexual" - ensuring its perpetuation at libitum.

Let us return now to the variety MEGER-561 "BACCARA" whose creation resulted from all the operations we have just described on a general basis, and let us see the rest of the statistical table shown at the beginning of the projection of our film.

1951/1952/1953 are the three years during which special experiments took place on the behavior of the new variety in the 13 countries which make up the distributing organization called UNIVERSAL ROSE SELECTION.

In each of these countries, we have collaborators whose confidential mission it is to test each new variety for a period of three years. The results of these trials are set forth and commented upon at a meeting which takes place each year at our center at Cap d'Antibes.

Any variety which, after such trials, does not favorably comply with the conditions of climate and growth for the group of the countries in question is automatically rejected and all its specimens still in existence have to be destroyed.

This was not the case for the variety MEGER-561 "BACCARA" a study of which was undertaken in these 13 countries in the fall of 1951 and whose dissemination was unanimously decided upon in May 1954. This variety was therefore placed on the market in all the countries in question during the season Fall 1954/Spring 1955. Similarly to MEGER-561 "BACCARA" any variety whose dissemination has been so decided becomes the object of a detailed description of its physical and biological characters, so as to answer the requirements of its registration in the various countries in which it is to be disseminated:

- identification of the color, especially of its flower, its leaves, following accepted international charts;
- technical documents in color accompanying a detailed description of the constituent elements of the plant.

Such are the various phases of the work which, starting with artificial pollination, lead to the marketing of our new roses.

It is then that the Rose Industry will be able to obtain a supply of this new matter constituted by the "eyes" of each variety put on the market.

Ever since the beginning, these "eyes" have been an object of international trade. They constitute, in fact, this "raw material" indispensable to the Rose industry when it wishes to start work on a production.

Following a fairly recent technique, the branches bearing the eyes in question are kept in cold storage so as to meet the demand, immediately and at all times. In this way, the first industrial plant made by the originator, will be reproduced ad libitum and always identical to itself, as evidenced by looking at these fields where each variety asserts its own individuality as well as the stability of its physical and biological characters such as recorded in the various declarations for Registration.

Let us conclude this preamble by summing up in the shape of a diagram the whole of the operations which we have just commented upon.

The creation of a new variety of rose depends on the following facts :

(the statistical table and diagram are read over)

Discovery of a new matter and industrial application of this discovery.

If we are not afraid of undertaking such operations which are both lengthy and costly; if we estimate that some ten years are necessary for us to create and test our Roses in order to keep up with world-wide competition, it is because we are anxious for our good name and reputation to be linked only to creations capable of interesting the users at every degree of production and consumption.

LA CREATION DES ROSES NOUVELLES

S'il est un buisson sauvage dont le type et le comportement sont des plus familiers aux Amateurs de promenades à la campagne, c'est bien celui qui, çà et là, au long des haies, dans les landes et dans les sous-bois, fait surgir à leurs yeux la gracieuse églantine printanière, cette sauvageonne dont on peut réellement dire qu'elle n'a rien de "cultivé".

C'est une plante hermaphrodite, c'est à dire dont les fleurs portent, à la fois, les organes de reproduction des deux sexes.

On trouve donc, dans la fleur de l'églantier, les organes mâles ou étamines dont les anthères contiennent le pollen, et les organes femelles ou pistils, dont les stigmates reçoivent et retiennent ce pollen. Une fois en contact avec un stigmate, le grain de pollen ne tarde pas à germer, puis à se développer. Il prend alors un aspect filiforme et traverse peu à peu le canal pollinique pour aller féconder l'ovule correspondant, à l'intérieur du réceptacle. Les ovules fécondés formeront, par la suite, les graines que l'on trouve à l'intérieur des fruits.

De cette fécondation naturelle, ou auto-fécondation, qui se produit au moment où les étamines, en se repliant, mettent du pollen en contact avec les pistils, résulte la formation de fruits qui se détacheront à maturité et qui, au hasard de leur point de chute et par suite de leur corruption, libéreront ces graines dont les rongeurs sont friands, mais dont la Nature préservera toujours un certain nombre pour assurer la perpétuation de l'espèce. C'est pourquoi l'on

constate souvent la présence, près de quelque vieille souche d'églantier, de ces jeunes plantules issues de graines qui, plus ou moins enfouies dans la mousse ou recouvertes d'humus, se sont trouvées placées dans des conditions favorables à leur germination.

Ainsi n'a cessé de se perpétuer, à travers les âges, la modeste Eglantine Fille de la Nature et ancêtre lointain de toutes nos belles roses modernes dont la forme, la duplication et les couleurs semblent parfois atteindre le summum de la perfection et de la beauté, qui doivent leur évolution à l'intervention toujours plus précise et plus marquée de la Main de l'Homme et qui tiennent aujourd'hui une place si importante dans l'ornementation de nos parcs de nos jardins et de nos demeures.

Depuis plus d'un siècle, les Amateurs de Roses ne plantent plus d'espèces sauvages dans leurs jardins, qu'à titre de curiosité. Par contre, les rosiers cultivés et recherchés de nos jours, sont des plantes qui doivent leur création à des processus artificiels, c'est à dire étrangers au comportement habituel de l'espèce. Ils se distinguent des rosiers sauvages en ce sens qu'ils n'ont pas, comme eux, la faculté de naître et de se reproduire seuls. Par suite des croisements à outrance dont ils sont nés, ils sont très éloignés de leur espèce d'origine et, du point de vue génétique, ce sont des hybrides extrêmement complexes.

Ce qu'ils ont gagné en beauté et en perfection par la culture, les a métamorphosés au point de leur valoir une inaptitude totale à assurer leur perpétuation sans le secours de la main de l'Homme. C'est en quelque sorte comme si la Nature prenait sa revanche en n'assurant plus d'elle-même la reproduction de

ces Roses que l'Homme a obtenu d'Elle par force.

Il n'est pas d'exemple, en effet, qu'un Amateur ait jamais constaté dans son jardin, qu'un rosier d'une variété horticole ait donné naissance à de jeunes rosiers du fait que ses graines se soient répandues sur le sol. Il n'est pas non plus d'exemple qu'un tel rosier se soit divisé de lui-même, dans un massif ou une plate-bande, pour y former d'autres plantes de la même variété. Ce n'est pas davantage dans les bois que l'on a trouvé ou que l'on risque de trouver des "SOUVENIR DE LA MALMAISON", des "PAUL NEYRON" ou des "LA FRANCE", par exemple, variétés que l'Industrie Horticole utilise depuis un siècle, et même en admettant que l'églantine des bois ait pu être fécondée par un insecte chargé du pollen de la fleur d'un rosier horticole, ou bien que cette opération ait été délibérément faite de main d'Homme, il n'en résulterait rien d'autre que la production de jeunes églantiers: Résultat propre à étonner les non-initiés mais bien connu des généticiens.

Ainsi peut-on établir une différence entre les rosiers sauvages et les rosiers de variétés horticoles.

Les rosiers sauvages sont, en effet du DOMAINE de la NATURE; leur reproduction ne nécessite pas l'intervention de la main de l'Homme; ce sont des produits de la Nature et leur classification relève purement et simplement de la Botanique.

Par contre, les rosiers de variétés horticoles sont du DOMAINE de l'INDUSTRIE; leur reproduction nécessite l'intervention de la main de l'Homme; ce sont donc des PRODUITS NATURELS, c'est à dire obtenus de la Nature par l'Industrie de

L'Homme et leur classification ne relève que de la Nomenclature des plantes cultivées.

La mise en oeuvre, par l'Homme, de certains processus étrangers au comportement normal de l'espèce, s'est avérée féconde. Depuis ces roses qui, marquant une époque, ont fait les délices de nos aïeules, un long chemin a été parcouru. Il nous vaut aujourd'hui cette grande diversité qui existe dans l'utilisation des variétés nouvelles pour l'ornementation des parcs, des jardins et des lieux publics:

- jardins de rocailles, comportant la plantation de certaines variétés à végétation particulière, notamment celles à rameaux divergents;
- rosiers Miniatures dont certains ne s'élèvent guère à plus de 15/20 c/m.
- bordures, de hauteurs diverses, toujours fleuries ou prêtes à refleurir;
- groupe de rosiers à tiges uniflores et à forte végétation; de même aussi qu'à tiges pluriflores, c'est à dire fleurissant en corymbes, d'où une floraison prolongée et peut-être plus spectaculaire dans son ensemble;
- corbeilles, massifs, plate-bandes à grands effets de masse qui sont l'orgueil de nos jardins et de nos roseraies;
- rosiers-tiges utilisés en bordures avec garniture de rosiers nains;
- rosiers pleureurs, isolés sur pelouses ou en combinaison avec d'autres érigés en pylones;
- garnitures de portails, de clôtures, de pergolas, de grandes surfaces et aussi, parfois, fantaisies décoratives d'une certaine originalité, permettant par exemple, à ce remarquable Gigantéa, qui peut émettre au cours d'une année, des pousses extrêmement vigoureuses, de monter à l'assaut de quelque olivier séculaire.

Mais c'est en raison de ce que les besoins de l'Industrie Horticoles se font sans cesse plus grands et plus précis, que les créateurs de Roses ont dû, plus que jamais, s'attacher à provoquer le développement ou l'apparition de certains caractères physiques et biologiques dans leurs créations, de façon qu'il ressorte de l'ensemble -plante et fleur- un effet technique nouveau, susceptible d'intéresser les utilisateurs à tous les échelons de la production et de la commercialisation, notamment en ce qui concerne l'industrie de la fleur coupée.

Cet effet technique recherché portera par exemple:

- sur une certaine facilité de multiplication, en vue d'obtenir un rendement maximum dans les Pépinières;
- sur une bonne résistance de la plante aux maladies cryptogamiques, telles que le Marsonia Rosea, le black-spot, le mildew, la rouille, l'oïdium;
- sur une non-moins bonne résistance aux gelées printanières et hivernales;
- sur la productivité, car il est bien certain que le forceur ne saurait s'intéresser à une variété nouvelle qui ne produirait par exemple que 5 ou 6 fleurs par saison, alors qu'une variété antérieure lui permet déjà d'en récolter 8 ou 9;
- sur l'aptitude à refleurir, car il est agréable de constater que sitôt la fleur fanée, certains yeux de la tige principale se développent rapidement pour émettre de nouvelles tiges à fleurs;
- sur la résistance de la fleur à l'emballage. Les fleurs les plus belles qui arriveraient à destination avec des pétales fripés ou flétris, n'auraient aucune chance de rencontrer la faveur du fleuriste;

- sur la résistance également de la fleur à l'intempérie. Il est des fleurs qui, en effet, sont des merveilles par temps sec mais qui ne sauraient supporter la moindre pluie sans marquer des traces d'altération ou bien se pigmenter et se maculer aux effets d'un soleil trop ardent.
- enfin, l'effet technique portera également sur la durée de la fleur et la persistance de son coloris. Dans ce cas, des expérimentations sont devenues de plus en plus nécessaires car le facteur durée, notamment, est un point d'une très grande importance. En ce qui nous concerne, nous nous livrons à des observations en toutes saisons, portant par exemple sur la faculté d'absorption d'eau par les tiges, car on dit de certaines roses qu'elles ne "boivent pas", en quoi elles se fanent beaucoup plus vite que d'autres; sur la rapidité d'épanouissement et de la chute des pétales.

Vous remarquerez, sur cette vue, que le dernier vase à gauche, de même que le deuxième vase à partir de la droite, contiennent des tiges dont les fleurs n'ont pas encore perdu un pétale, alors que les autres en sont déjà dépourvues. Sans doute, les quelques professionnels ou amateurs qui se livraient autrefois à la création des roses n'avaient pas à faire face à de tels critères d'une façon aussi absolue. Les cultivateurs, producteurs, fleuristes et amateurs étaient moins exigeants; leurs besoins étaient moins grands et la conquête ou le maintien de certains marchés se faisait moins impérieux que de nos jours.

Le signal d'une technique nouvelle, avec des moyens dépassant tous ceux qui étaient en usage précédemment se fit sentir dès 1930, c'est à dire du jour où les Etats-Unis instituèrent le Plant Patent Act.

Dès lors, la recherche des roses nouvelles prit, très vite, un tout autre aspect. L'immense marché Américain des rosiers et des roses devint subitement l'enjeu d'une Compétition serrée entre tous les Obtenteurs du Monde entier. Avantageés et stimulés par les effets de la Protection, les Obtenteurs Américains redoublèrent d'efforts; leur nombre s'accrut rapidement et la concurrence devint telle que l'on vit se former des Etablissements spécialisés, nantis de budgets importants et entièrement consacrés à des travaux de Recherches.

Par la suite, des articles substantiels célébrant la création d'une ère nouvelle dans les roses, furent publiés dans des Revue à usage des professionnels et même du grand public.

Les Obtenteurs Européens pouvaient-ils, dès lors, rester dans l'inertie ? En fait, s'ils voulaient survivre, ils n'avaient pas d'autre alternative que celle de s'équiper à leur tour pour affronter le marché mondial.

C'est ainsi qu'il va vous être donné de voir de quelle façon, en ce qui nous concerne, nous nous sommes organisés à cette intention.

C'est au Cap d'Antibes que se situe notre Etablissement. Nos installations s'étendent sur 6 hectares environ, et la surface vitrée couvre 24.000 m². En dehors de celles où ont lieu nos expérimentations concernant les Roses de forçage, certaines de nos serres sont aménagées suivant une technique spécialement adaptée au système de culture sans sol, que nous utilisons pour l'élevage de nos rosiers de semis.

C'est dans cet Etablissement que nous pratiquons, sur une très vaste échelle, soit en serre, soit en plein air, la fécondation artificielle des roses, à

partir de géniteurs spécialement choisis. Cette opération se traduit chaque année, par la fécondation de 15 à 20.000 fleurs. C'est également là que nous étudions et que nous opérons suivant les plus récentes données scientifiques, en vue de provoquer l'apparition de certaines mutations végétatives ou florales des plus utiles à nos recherches. C'est pourquoi, nous soumettons certains sujets, ou certaines portions de sujets, à des traitements à base d'alcaloïdes ou, encore, à l'action de certaines radiations, notamment en ce qui concerne des pollens.

Des fécondations opérées à l'aide de ces pollens irradiés, résultent des petites plantes qui sont alors soigneusement examinées par rapport à des lots témoins. Plus tard, certaines d'entre elles présenteront des anomalies végétatives et florales, constituant des "monstres", dont l'aspect est une démonstration de l'anarchie cellulaire et du désordre végétatif que de tels traitements ont provoqués.

(explications à donner ici, sur l'aspect de quelques monstres suivant leur apparition sur l'écran).

Certains sujets apparaîtront cependant dotés de caractères suffisamment saillants et singuliers pour mériter une étude plus poussée permettant de découvrir un jour, le produit nouveau susceptible d'intéresser l'Industrie horticole. La Rose bleue ? Peut-être; mais que de travail encore avant de pouvoir obtenir la fixité et la pureté d'un tel coloris! Déjà, cependant, d'excellents résultats ont été acquis en ce qui concerne les vermillon-orangé, témoin cette fleur extraordinaire au coloris d'une luminescence telle que l'oeil s'en trouve manifestement ébloui.

Mais notre activité principale étant, comme nous l'avons dit précédemment, relative à la création des roses issues de fécondation artificielle, nous allons vous montrer, dans leur phases successives, les travaux auxquels nous nous livrons à cet effet. Pour une meilleure compréhension du sujet, nous avons choisi, à titre d'exemple, un type de rose bien défini. Il s'agit de notre variété MEGER-56I, que nous avons commercialisée sous la Marque: "BACCARA".

Vous remarquerez d'après ce tableau, que la succession des opérations ayant abouti à la création, puis à la commercialisation de cette variété se sont échelonnées sur 10 années, c'est à dire de 1946 à 1955.

En 1946, se situe d'abord l'idée créatrice, cette intervention de l'esprit qui distingue justement le travail de l'Obtenteur de celui de l'Horticulteur, travail qui, pour ce dernier, ne consiste qu'à reproduire quelque chose de déjà connu. D'autre part, si l'on considère que les Obtenteurs donnent actuellement à leurs travaux une orientation de plus en plus scientifique, il ne saurait faire de doute que, ni plus ni moins que dans le domaine de la matière inerte, les créations ou perfectionnements qui résultent de ces travaux, accusent l'idée créatrice ayant présidé à leur réalisation.

Donc, c'est en 1946 que nous eûmes l'idée de procéder à un croisement qui, à la lumière de certaines observations d'ordre physiologique et biologique, sur des géniteurs spécialement choisis, nous permettrait de créer un rosier nouveau susceptible de présenter, dans l'Industrie Horticole, un intérêt supérieur à celui suscité par des rosiers déjà connus.

Nous entrevîmes donc ce rosier nouveau comme devant appartenir à la Classe des Hybrides de Thé. Sa végétation serait régulière et très élevée. La plante devait émettre de longues et fortes tiges uniflores et pouvoir en développer rapidement de nouvelles après coupe. La fleur aurait un vif coloris rouge-géranium très lumineux dont les rosiers de cette classe n'étaient pas encore dotés à ce jour; elle devrait avoir, en outre, des qualités de tenue et de durée en nette amélioration sur celles existant auparavant, qualités conditionnées entre autres par la rigidité des pétales, leur nombre et leur position sur la couronne du calice.

Les données du problème ainsi posées, deux géniteurs furent mis en présence, dont nous savions, par expérience, que certains caractères étaient susceptibles de se combiner ou de réagir entre eux pour constituer la physiologie nouvelle de la descendance dont nous allions provoquer la formation.

La variété RIM-1020 "ROUGE MEILLAND (Happiness)" fut choisie comme géniteur femelle, c'est à dire comme porte-graine, et la variété "KORDES SONDERMELDUNG" comme géniteur mâle. L'opération de fécondation artificielle, à partir de ces deux géniteurs, fut pratiquée à la fois sur des plantes de serre et de plein air, pendant les mois de Mai et Juin 1947 et sur plus de 5.000 fleurs.

Délaissant un instant le cas particulier dont nous venons de vous donner une partie de l'historique, nous allons maintenant vous montrer sur un plan plus général, la succession des opérations qui, à partir de la fécondation artificielle, aboutissent à la réalisation ... ou à l'échec ... de l'idée créatrice de l'Obtenteur.

Avant le stade d'ouverture, c'est à dire avant que les organes de reproduction tels que nous les avons vus en détail dans la fleur de l'Eglantine, aient atteint leur maturité, la fleur choisie comme porte-graine est débarrassée de ses pétales, puis privée de ses étamines, c'est à dire des organes porteurs du pollen indésirable. Vingt quatre ou quarante huit heures après, c'est à dire lorsque les pistils de la rose castrée sont arrivés à maturité, le pollen étranger, recueilli de la rose-Père, vient alors féconder la rose-Mère. Le mariage est consommé; il portera ses fruits.

De ces fruits seront extraites des graines dont les cellules sont biologiquement différentes de celles qui seraient provenues d'une fécondation naturelle puisqu'elles résultent de la fusion de deux cellules empruntées chacune à un géniteur différent. D'autre part et de toutes façons, nous avons vu précédemment qu'elles n'auraient aucune chance d'entrer en germination si elles n'étaient semées dans des conditions particulières. Elles sont donc soigneusement semées en Novembre de l'année de la récolte. Ecartement, profondeur, terre franche, comme milieu, sable en surface... tout est calculé pour assurer les conditions optima nécessaires à une bonne germination.

L'année suivante, c'est à dire trois mois environ après le semis, apparaissent les populations hétérogènes artificiellement formées. Ce sont de véritables bébés-rosiers qui, à partir du moment où ils émettent leur premières feuilles, doivent faire l'objet de soins constants notamment pour les aider à se défendre contre les maladies cryptogamiques dont les sujets faibles sont la proie et qui risquent d'atteindre les sujets forts par contagion.

Ils se trouvent peu à peu porteurs de petits boutons observés avec d'autant plus

d'attention que nous pouvons ainsi déjà nous rendre compte, pour une étude ultérieure, quel est celui des deux géniteurs qui affirme, par exemple, la dominance de son caractère coloris sur celui de l'autre. Mais rien encore, apparemment, ne permet de dire quelle sera la plante susceptible d'être isolée au titre d'une recherche qui comporte elle-même d'autres recherches suivies de nombreuses expérimentations.

Déjà, une première sélection peut avoir lieu, qui aboutit à l'élimination de tous les sujets indésirables.

Parvenus au stade de développement où le problème de leur espace vital doit être résolu, les jeunes rosiers sont dépouillés de leurs fleurs, puis arrachés pour être repiqués dans les banquettes que nous utilisons pour la culture en solution nutritive. Ces banquettes sont en ciment et leurs parois intérieures sont revêtues d'une émulsion à base d'asphalte qui, tout en assurant leur étanchéité, a pour but d'empêcher tout échange d'ions entre les éléments calcaires du ciment et ceux acides de la solution nutritive. Elles sont remplies d'un sable silicieux, d'une granulométrie très étudiée, soigneusement lavé au préalable pour éviter la présence de toute matière organique dont la décomposition provoquerait l'altération de la solution nutritive que l'on fera circuler au travers de ce sable. Cette solution comprend une douzaine d'éléments convenablement dosés et doit périodiquement faire l'objet d'une analyse et d'un contrôle de son PH.

Par rapport à une culture dans le sol de plantes aussi délicates, ce système a l'avantage de supprimer les risques de ravages ou de destruction causés par les insectes, les virus, les maladies cryptogamiques et, tout en évitant les

dés herbages et les binages, de résoudre pour nous la question de l'assolement.

Un tel régime leur convient parfaitement, ainsi qu'en attestent leur croissance et leur vigueur exceptionnelle, de même que le développement de leur système racinaire, après 3 années de culture dans ce milieu. C'est d'ailleurs un grand avantage de ce mode de culture car, en plein air et en pleine terre, de semblables résultats seraient difficiles à atteindre dans le même laps de temps.

Revenons maintenant à nos jeunes semis et, disons qu'une année devra s'écouler à partir de leur repiquage, pour qu'ils atteignent un développement suffisant et que l'étude de leurs caractères puisse s'envisager utilement. Les sujets qui semblent évoluer dans le sens prévu sont alors soigneusement marqués et référencés. Quant à ceux qui n'apportent pas une solution satisfaisante au problème de la recherche, ils sont impitoyablement détruits.

Au cours de la deuxième année, les éliminations successives auront considérablement réduit le nombre de sujets à l'étude, au point que certaines combinaisons n'en comporteront plus aucun. Nous en concluons que la Nature ne se laisse pas violer aussi facilement qu'on pourrait le croire, qu'Elle ne permet que bien peu à la fois et que nous devons orienter nos recherches différemment si nous voulons parvenir à la dompter.

A la fin de la deuxième année de cette étude sélective et dans le but d'épanouir non seulement les caractères constatés dans les plantes conservées, mais encore pour s'assurer de la fixité de ces caractères, des "yeux" sont prélevés sur ces plantes pour être greffés sur des porte-greffes appropriés.

Ces porte-greffes sont précisément des spécimen de ces jeunes églantiers dont nous avons parlé au début de cette projection. Disposés en pépinières dans les jardins d'essais où se poursuivent nos expérimentations, ils seront greffés au moyen d'un oeil prélevé sur chacune des dites-plantes conservées. Leur système racinaire puissant et robuste permettra à cet oeil de se développer pour former, après rabattage de leurs propres rameaux, des plantes douées d'une parfaite vitalité, d'une grande rusticité et qui prendront dès lors l'aspect de véritables rosiers marchands, c'est à dire de plantes industrielles.

L'année suivante, l'étude systématique de leurs caractères physiques et biologiques conduira peu à peu à l'élimination de toutes les plantes greffées à l'exclusion de celle qui répond aux exigences de la Recherche.

Dès lors, les caractères et les propriétés de la nouvelle plante industrielle ainsi obtenue seront transmissibles par voie agame, dite aussi asexuelle, assurant ainsi sa perpétuation "ad libitum".

Revenons maintenant à la variété MEGER-56I "BACCARA" dont la création résulte de toutes les opérations que nous venons d'évoquer sur un plan d'ordre général et revoyons la suite du tableau projeté au début de notre exposé.

1951/1952/1953 sont les trois années au cours desquelles sont intervenues des expérimentations particulières sur le comportement de la variété nouvelle dans les 13 Pays qui relèvent de l'organisation de distribution dénommée UNIVERSAL ROSE SELECTION.

Dans chacun de ces Pays nous avons, en effet, des collaborateurs qui ont pour

mission confidentielle de soumettre toute variété nouvelle à des essais s'étalant sur 3 années. Les résultats de ces essais sont alors énoncés et commentés au cours d'une réunion qui a lieu chaque année à notre Etablissement du Cap d'Antibes.

Toute variété qui, à la suite des essais pratiqués, ne répond pas favorablement aux conditions climatiques et culturelles de l'ensemble des Pays considérés est automatiquement rejetée et tous les spécimen qui en existent doivent être obligatoirement détruits.

Tel ne fut pas le cas pour la variété MEGER-56I "BACCARA" dont l'étude fut entreprise dans ces 13 Pays à l'Automne de l'année 1951 et dont l'édition fut unanimement décidée en Mai 1954. C'est ainsi qu'elle fut commercialisée dans tous les Pays en question au cours de la saison Automne 1954/Printemps 1955.

A l'exemple de MEGER-56I "BACCARA" toute variété dont l'édition est ainsi décidée fait dès lors l'objet d'une description minutieuse de ses caractères physiques et biologiques, en vue de répondre aux nécessités de son enregistrement dans les différents pays où elle sera diffusée.

- identification de la couleur notamment de sa fleur, de ses feuilles, suivant les Chartes Internationales agréées.
- Documents techniques en couleurs accompagnant une description détaillée des éléments constitutifs de la plante.

Telles sont les différentes phases des travaux qui, depuis l'opération de fécondation artificielle, aboutissent à la mise au commerce de nos roses nouvelles.

C'est alors que l'Industrie Rosicole pourra s'approvisionner de cette matière nouvelle que constituent les "yeux" de toute variété mise au commerce.

Depuis toujours, ces "yeux" ont fait l'objet d'un commerce international. Ils constituent, en effet, cette matière première indispensable à l'Industrie Rosicole lorsqu'elle a en vue la mise en oeuvre d'une production. Suivant une technique relativement récente, les rameaux porteurs de ces yeux sont stockés et conservés dans des chambres frigorifiques en vue de pouvoir répondre immédiatement et en tous temps à la demande.

Ainsi, se trouvera reproduite, ad libitum et toujours conforme à elle-même, la première plante industrielle formée par l'Obtenteur, ainsi qu'en témoigne la vue de ces champs où chaque variété affirme l'individualité qui lui est propre, de même que la permanence de ses caractères physiques et biologiques, tel que consignés dans les différentes déclarations ayant fait l'objet d'un enregistrement.

Concluons maintenant cet exposé en résumant sous forme d'un Tableau schématique, l'ensemble des opérations que nous venons de commenter. La création d'une variété nouvelle de rose se rattache aux considérations suivantes:

LECTURE DES TABLEAUX:

Découverte d'une matière nouvelle et Application Industrielle de cette
découverte.

Si nous ne craignons pas d'entreprendre ainsi des travaux qui sont, à la

fois, longs et coûteux; si nous estimons qu'une dizaine d'années nous sont nécessaires pour créer et expérimenter nos roses en vue de soutenir la compétition mondiale, c'est parce que nous avons le souci de n'attacher notre nom et notre réputation qu'à des créations susceptibles d'intéresser les utilisateurs à tous les échelons de la production et de la consommation.

varietes horticoles, ou rosiers horticoles, ce n'est peut être pas très français de dire cela, mais cela différencie bien ^{pour l'auditeur} le sauvage du cultivé. En fait, il faudrait dire : variétés cultivées par opposition à espèces sauvages et rosiers cultivés — — — rosiers botaniques.

Mme de Arendt