

Rhododendronforeningen

Danish Chapter of the ARS
www.rhododendron.dk



Pollen germination on the surface of 0.70% agar in water for 12 hours at 20-22C.

The germination of pollen could vary between the flowers age and condition.

All results must be copied 2-3 times. Since pollen may lose its capacity to germinate by rain, dryness, heat, age, and poorly developed flowers ...

When I collected pollen, I tried to take it from the newly opened anthers

In polyploid plant the cells could have different numbers of chromosomes (sport) mosaics so sometimes the pollen can germinate (make pollen tubes) from some flowers.

SAMPLE = Rhododendron hybrid

P.Germ. = Pollen grain germination %

Ref. = Reference person.

...HE = Hans Eiberg

...JP = Dr. Jo o Loureiro, Dr. Silvia Castro, Jos Cerca, and Mariana Castro (John Perkins) [JP](#)

...TE = Tom Eeckhaut (p.75) [TE](#)

...JRJ = J. R. Jones (p.30-) [JRJ](#)

...LW = Larry Wallance (personal information)

...KT = Kristian Theqvist (personal information)

Ploidy = Number of chromosome set

[Weighing In: Discovering the Ploidy of Hybrid Large Leaf Elepidote Rhododendrons. J. Perkins et al. \(More data here\).](#) [More weighing In: Exploring the Ploidy of Hybrid Elepidote Rhododendrons J. Perkins et al. \(More data here\)](#)

I am working on this web-site.

7 4N

Sample	P. Germ.	Ref.	Ploidy	Ref.
Arbendsonne	5	HE		
Admiral De Ruyter			4N	JP
Adonis	20	HE		
Aglo			2N	JRJ
Aida			3N	JP
Altaclerensis			4N	JP
Angel Powder			3N	JP
Anilin	0	HE		
Anabelle	8	HE		
Anna			2N	JP
Antoon van Welie			4N	JP
Anuschka	0-1	HE		
April Rhapsody			3N	JP
April Rose	no pollen		2N	JRJ
Ariel			4N	JP
Arnold Piper			Polyploid?	JP
R. atlanticum X (R. atlanticum x R. molle)			4N	JP
August Lamken	2	HE	3N	JP
Azurro	0	HE		

Azurwolke	50	HE		
Bad Eilsen	0	HE		
Beat C leste			4N	JP
Bernstein	15	HE		
Berry Rose	20-40	HE		
Bijou des Amateurs			4N	JP
Billini	2	HE		
Blaufeder			4N	TE
Blewbury	50<	HE		
Blue Diamond	80	HE		
Bluenose			3N	JP
Blue Peter	5-15	HE		
Blueshine Girl	5	HE		
Blue Target			4N	JRJ
Bouquet de Flore			4N	JP
Brasilia	10	HE		
Broughtonii			3N	JP
Birgitte	10-40	HE		
Brittanica	0 dry	HE		
Bronze Unique			3N, F	JP
Buketta	50-85	HE		
Bureavii Hanzel	1-10	HE		
Butterfly	0	HE		
campylocarpum Margor	0-1	HE		
California Gold			2N	JRJ
Caractacus	2	HE		
Cardinal			4N	JP
Carmen	70	HE		
Caroline Albrook	30	HE		
Casille			2N	JP
Catawbiense Album	15	HE		
Catawbiense Grandiflorum	5	HE		
Catherina von Toll	10	HE		
Chetco			4N?	?
Cheyenne			2N	JRJ
Chickor			2N	TE
China AM	10-40	HE		
Choptank			4N	JP
Clivia	0	HE		
Coastal Spice			2N	JRJ
Coleman's May Pink			4N	JP
Comte de Fladre			4N	JP
Corneille			4N	JP

Cotton Candy			3N	JP
Countess of Derby			4N	JP
Cowslip	1	HE		
Cream Crest	10	HE		
Creekside			2N	JP
Crest	80	HE		
Croceum Tricolor			3N	JP
Cunninghams White	25	HE		
Curlew			2N	TE
Cymodocee			4N	JP
Cynthia			3N	JP
Daviesii			3N	JP
Deep Rose			3N	JP
Doreen Gale			4N	JP
Diadem	0/20	HE		
Diamant	5	HE		
Diandi	0	HE		
Diane			2N	JP
Directeur Charles Baumann			4N	JP
Discolor x Vauban	2	HE		
Django	pollen steril	egg steril	3N	JP, KT
Dora Armateus			2N	JRJ
Doreen Gale			4N	JP
Doberluger Weisse	10	HE		
Durante Alle			4N	JP
Effner	20	HE		
Ehrengold	15	HE		
El Camino			3N	JP
Electum			4N	JP
Elfenfee	no pollen	HE		
Elisabeth Lockhart	10	HE		
English Roseum	5	HE		
Epoch			4N	JP
Erato	20	HE		
Euan Cox			2N	TE
Eug nie			4N	JP
Evening Sky			3N	JP
Everlasting			2N	JRJ
Fantastica			2N	JRJ
Fastuosum Flore Plenum	0	HE		
F nelon			4N	JP
Feuerwerk x	1	HE		
Fireflash x Buttercup			4N	JP

Flameola Incarnata			4N	JP
Flava	10	HE		
Freya			3N	JP
Improved Fragrantissimum			2N	JRJ
Frosthexe	No pollen		3N	JP
Furnivals Daughter	2-4	HE	2N	?
Gardendirektor Glocker	no pollen	HE	3N	JP
Gardendirector Riger	0-1	HE		
Gargantua			4N	JP
Geisha Purple	0	HE		
Gentle Giant			4N	JRJ
George Maier	25	HE		
Gertrud Sch le	10	HE		
Gladywense			3N	JP
Gletschernacht			4N	JRJ
Gloria Mundi			3N	JP, TE
Goldbukett	no pollen	HE		
Golden Bee			2N	TE
Golden Sunset	5-20	HE		
Goldflimmer	5-80	HE	2N	JRJ
Goldika	3-10	HE		
Goldkrone	5-20	HE		
Goldsworth Orange			2N	TE
Gormer Watere	0	HE	3N	JP
Graf Lennart	80	HE		
Graf Zeppelin			2N	JP
Grand Slam			4N	JRJ
Grumpy	20	HE		
G rlitz	0-5	HE		
HabaShan			2N	TE
Hachmann's Feurschein	4	HE		
Hallelujah			3N	JRJ
H roine Plena			4N	JP
Heureuse Surprise			4N	JP
H.H.Hume			2N	JP
Hillier's form			4N	TE
Holger	70	HE		
Hollandia			4N	TE, JP
Hodspur red	20	HE		
Hora			4N	JP
Horizont Lakeside			2N	JP
Horizont Monarch			4N	JRJ, JP
Horizont Monarch x Point Defiance			4N	JRJ

Horizont Monarch x Rwain			4N	JP
Hotei			2N	JP
Humboldt	20-50	HE		
Hummingbird	15	HE		
Hyperion	5	HE		
Igneum Novum			4N	JP
Il Tasso			4N	JP
Insigne x	5-15	HE		
Intermedium	15	HE		
Jacksonii	10-20	HE		
Jackwill	0	HE		
Janet Blair	8	HE	2N	JRJ
Jean Marie de Montaque	2-20	HE		
Jean Marie			2N	JP
Jenny Lind			4N	JP
Jingle Bells			2N	TE
Josephine Klinger			3N	JP
Juliana Nova			4N	JP
Julius Caesar			4N	JP
Kalinka	3	HE		
Karin	90	HE		
Karl Saurborn	15	HE		
Kehr's White Ruffles			3N	JP
Kermesina	50	HE		
Kokardia	no pollen	HE		
Kupferberg			2N	TE
Lavendula	no pollen	HE		
Leibuir			4N	JP
Lelia			4N	JP
L'Engin			4N	JP
Lem's Monarch			4N	JRJ, JP
Linda	15	HE		
Lissabon	20	HE		
Looye's Blue			4N	JP
Madame Cavalho	2	HE	2N	JP
Madame Gustave Guillemot			4N	JP
Mancando	8	HE		
Manitou			2N	JP
Marietta	50	HE		
Marie Verschaffelt			4N	JP
Marius Koster			4N	JP
Marketta Flame			3N	JP
Marlene Vuyk	10	HE		

Marlis	0	HE		
Mars	0	HE		
McNabii			2N	JRJ
Maxicat			2N	JRJ
Melba's Dream			2N	JP
Minerva			4N	JP
Miniatum Floribundum			2N	JP
Moerheims Pink	0	HE		
Monica	0	HE		
Morgenrot	10	HE		
Mrs.T.H. Lowinsky	10	HE		
Mysterious Maddenii			2N	JRJ
Nancy Evans			2N	TE
Nancy Waterer			4N	TE, JP
Narcissiflora			4N	
Nacelle			2N	JP
Nova Zembla	20	HE	2N	JRJ
Oberg rtner H. Robeneck	80	HE		
Old Port	70	HE		
Onkel Dines	10	HE		
Orangina	5-10	HE		
Oscar I			4N	JP
Pastel #6,7,20			2N	JP
Patricia Barmold	40	HE		
Percy Wiseman	2	HE		
Perfecta			4N	JP
Phebe			3N	JP
Phidias			3N	JP
Phyllis Korn			3N	JP
Phyllis Korn x Trude Webster			5N	JP
Piepmatz	5	HE		
Pink Puff			2N	JP
Pink Pearl (fertile)	8	HE	3N	JP
Point Defiance			JRJ, JP	
Polar Bear			2N	JP
Pontica Album			3N	JP
Praecox	70	HE		
Princess Anne	80	HE		
Princess d'Orange			4N	JP
Ptarmigan	60	HE		
Purple Gem			3N	JP
Purple Splendour	20	HE		
P.J. Mezitt	3	HE	2N	JRJ

P.J.M. Regal	2	HE		
Polar Beer			2N	JRJ
Praxitle			3N/4N	JP
Puget Sound			2N	JRJ
Queen Anne x Gold Dust			2N	JRJ
Quentin Metsys			4N	JP
Racine			4N	JP
Radistrotum	5	HE		
Ramapo			3N	JP
Ramolet			3N	JP
Raphael de Smet			4N	JP
Rendezvous			2N	JP
Ribera			4N	JP
Riplet	10	HE		
Roland	0 ?	HE		
Rosata	0	HE		
Rose Marie			4N	JP
Rosita	5	HE		
Rothenburg	<1	HE	3N	JP
Rwain			3N	JP
Rwain x L'Engin			4N	JP
Sammetglut	20	HE		
Santiam			3->4N?	?
Shamrock			2N	TE
Shappo	40	HE		
Scarlet Wonder	0	HE		
Schlaraffia	10	HE		
Schneebukett	20	HE		
Schneeglanz	70	HE		
Schneespiegel	1	HE		
Scintillation	no pollen	HE		
Silberwolkwe	1	HE		
Simona	0	HE		
Snehvide	1-10	HE		
Snow (Kurume azalea)			2N	JP
Solidarity			3N	JP
Solidarity, OP			3N	JP
Southern Cloud			3N	JRJ
Souvenir du Pr sident Carnot			4N	JP
Speciosum Yellow #3			4N	JP
Summer Peach			2N	JP
Sunny			4N	TE
Surprime Rose	10	HE		

Tatjana	30	HE		
Taurus	0	HE	3N	JRJ
Teniers			4N	JP
Titian Beauty	0	HE		
Toy			2N	JP
Trude Webster			4N	JP
Unique			4N	TE
Vanessa	10	HE		
Van Houttei Flore Pleno			3N	JP
Veesprite			3N	JP
Velasquez			3N	JP
Virginia Richard	0	HE		
Viscy Hobbie	0	HE	3N	TE
Vitalio	30	HE		
Vulcan			2N	JRJ
Vulcan's Flame			2N	JRJ
Vulcan's Tetraploid			2N + 4N	JRJ
Wardii x viscidifolium	2	HE		
Washington State Centennial			4N	?
Wee Bee	2	HE		
Weston's Crescendo			2N	JP
Whidbey Island			4N ?	LW
White Ruffles			3N	JRJ
Windbeam			2N	JP
Windsome	0-8	HE		
Wingard's Gold			4N	JP
Wisechap			2N	JP
yakushmanum x haematodes	3	HE		
yak. x pachysanthum	10	HE		
yak. x rex	5	HE		
yak. x strigillosum	10	HE		
yak. x thomsonii	25	HE		
yak. tsariense	10	HE		
Yellow Hammer	0-1	HE	7-8N	TE

References:

<http://www.ces.ncsu.edu/fletcher/mcilab/publications/jones-2008.pdf>

Hotei and Nancy Evans are pollen sterile R. niveum 6N some/all?

> Below are the results of the xx tested, 2017.

>

> 2x

> Adriaan Koster

> Bethany Jade

> Bruns Sirius

> Dagmar

> Doctor H.C. Dresselhuys

> Doctor V.H. Rutgers

- > Don Juan
- > Donald Watener
- > Double Besse
- > George Hardy
- > Gotham Rheingold
- > Gunborg
- > Heinje's Venezia
- > Irmelies
- > Isadora
- > Kathe Heinje
- > Lady Longman
- > Loder's White
- > Mrs E C Stirling P
- > Professor J.H. Zaaijer P
- > Scandinavia
- > Shoreham
- > Sir Robert Peel
- > Wanna Bee

>
> 3x
Ploidy results for named hybrid elepidotes based on flow cytometry done under the direction of Jo o Loureiro and Silvia Castro
Plant Ecology and Evolution Group,
Centre for Functional Ecology,
Department of Life Sciences,
Faculty of Science and Technology,
University of Coimbra, Portugal

3x Triploids (58 Total)
Anita Gehnrich (Gehnrich) UM
Anna Rose Whitney (Van Veen, 1954) F NM
Annie E. Endtz (Endtz 1939) DM
Arnold Piper
August Lamken (Hobbie, 1942)
Auguste Van Geert F
Beauty of Littleworth (Mangles, 1884)
Betty Wormald (Koster, 1907) F
Broughtonii (Broughton, 1840) F
Caruso (Hachmann 1990) NM
Charis (Hachmann 1990) NM
Cotton Candy (Henny and Wennekamp, 1958) F UM
Cynthia (Standish and Noble, 1856) F
Dame Nellie Melba (Loder, 1926)
Denali (Elliott 1987) NM
Diane Titcomb
Django (Hachmann 1985)
Ebony Pearl (sport, 1966)
El Camino (Whitney, 1976) NM
Frentano (Hachmann 1989) NM
Gartendirektor Rieger (Hobbie, 1947)
Gomer Waterer (Waterer, 1900) F DM
Grace Seabrook (Seabrook, 1965) UM
Halfdan Lem (Lem 1967) UM
Hallelujah (Greer, 1958)
Hank's Folly (Schannen) NM
Hollandia (Endtz 1938) DM
Inheritance
Johnny Bender (Seabrook 1960) F UM -- 4x alternative source
Julia Caroline (Brockenbrough, 1990) NM
Kaye Player F
Lady of Spain (Lofthouse, 1966) NM
Lucky Strike (Van Veen, 1958) NM
Lydia (Greer, 1963) F NM
Markeeta's Flame (Markeeta, 1960) UM
Markeeta's Prize (Markeeta, 1970) UM
Melville
Newcomb's Sweetheart (Newcomb 1968) NM
Opal Thornton (Thornton) NM
Pearce's American Beauty (Pearce, 1930) F
Phyllis Korn (Korn, 1969) F DM

Pink Pearl (Waterer, 1892) F DM
 Platinum Pearl (Greer, 1983) F NM
 Queen Mary (Felix and Dijkhuis 1950) DM
 Romilda (Hachmann 1990) NM
 Rothenburg (von Martin, 1944)
 Rwain (Colombel, 1993) F NM
 Solidarity (Schannen, 1969) F UM
 Souvenir de Doctor S. Endtz (Endtz 1924) DM
 Steredenn (Colombel) NM
 Sugar Pink (Greer, 1960) NM
 Super Dog (Bones) NM
 Taurus (Mossman, 1962) F UM
 Topsvoort Pearl (sport, 1935)
 Val d'Aulnay (Croux and Fils, 1984) F
 Van (Van Veen, 1930) NM
 Viscy (Hobbie 1950) UM
 Walloper
 4x Tetraploids (40 Total)
 Antoon van Welie (Endtz, 1930) 3X2
 Aristide Briand (Endtz 1950) 3XQ
 Brigg's Red Star (Briggs) T
 Cherry Cheesecake (Briggs) T *
 Countess of Derby (White, 1913) 3X3
 diaprepes `Gargantua' (Stevenson, 1923)
 Doctor A. Blok (Endtz 1937) 3XQ
 Doctor Arnold W. Endtz (Endtz 1927) 3XQ -- 3x alternative source
 Doreen Gale (Sanders) 4X4
 Friesland (Endtz 1958) 3XQ
 Gentle Giant (Sanders, 1992) 4X3
 Germania (Hobbie 1956) 4X2
 Gorgeous George (Sanders) 4X4
 Grand Slam (Greer, 1982) 4X3
 Great Balls of Fire (4X2)
 Helen Druecker
 Horizon Jubilee (Brockenbrough) *
 Horizon Monarch (Brockenbrough, 1981) 2X4
 Horizon Serenity
 Jan Dekens (Endtz 1940) 3XQ
 Janet Ward
 Julie Titcomb
 Le Fouesnantais (Colombel, 1997) 4XQ
 Legend (Barlup) 4X4
 Lem's Monarch syn Pink Walloper (Lem, 1965) 2X4
 L'Engin (de la Sabli re) 4X2
 Marinus Koster (Koster, 1937)
 Pink Goliath (van Nes 1958) 4XQ
 Point Defiance (Lem, 1970) 2X4
 Pride of Roseburg
 Professor Hugo de Vries (Endtz 1958) 3X2
 Red Walloper
 Reverend Paul aka White Owl (Sumner 1975) 4X4
 Summer Joy (Kehr) T
 Super Nova (Briggs) T *
 Trude Webster (Greer, 1960) 4x4
 TT166
 Very Berry (Greer, 1988) 4X2
 Virgo
 XXL (ID'Flor)
 5x Pentaploids (2 Total)
 Haithabu (Hachmann 1991) 4XQ
 White Ginger (Barlup 2001) 4X3
 F indicates a fertile triploid.
 T indicates a chemically induced tetraploid.
 P indicates a diploid with a polyploid ancestor.
 S indicates a diploid with a tetraploid parent.
 U indicates a diploid with a tendency to produce unreduced gametes.
 DM indicates a triploid resulting from a triploid parent.
 NM indicates a triploid resulting from a tetraploid parent.
 UM indicates a triploid resulting from 2 diploid parents.

2X4 or 4X2 indicates a tetraploid resulting from a diploid and a tetraploid parent.
3X2 indicates a tetraploid resulting from a triploid and a diploid parent.
3X3 indicates a tetraploid resulting from 2 triploids parents.
3XQ indicates a tetraploid resulting from at least one triploid parent.
4X4 indicates a tetraploid resulting from 2 tetraploid parents.
4X3 indicates a tetraploid or pentaploid resulting from a tetraploid and a triploid parent.
4XQ indicates a tetraploid or pentaploid resulting from a tetraploid parent. John Perkins
Here is a list of over 100 named polyploid elepidote hybrids.

Named Polyploid Elepidote Rhododendrons

3x Triploids

Anita Gehnrich (Gehnrich) UM
Anna Rose Whitney (Van Veen, 1954) F NM
Annie E. Endtz (Endtz 1939) DM
Arnold Piper
August Lamken (Hobbie, 1942)
Auguste Van Geert F
Beauty of Littleworth (Mangles, 1884)
Betty Wormald (Koster, 1907) F
Broughtonii (Broughton, 1840) F
Caruso (Hachmann 1990) NM
Charis (Hachmann 1990) NM
Cotton Candy (Henny and Wennekamp, 1958) F UM
Cynthia (Standish and Noble, 1856) F
Dame Nellie Melba (Loder, 1926)
Denali (Elliott 1987) NM
Diane Titcomb
Django (Hachmann 1985)
Dr. Arnold W. Endtz
Ebony Pearl (sport, 1966)
El Camino (Whitney, 1976) NM
Frentano (Hachmann 1989) NM
Gartendirektor Rieger (Hobbie, 1947)
Gomer Waterer (Waterer, 1900) F DM
Grace Seabrook (Seabrook, 1965) UM
Halfdan Lem (Lem 1967) UM
Hallelujah (Greer, 1958)
Hank's Folly (Schannen) NM
Hollandia (Endtz 1938) DM
Inheritance
Johnny Bender (Seabrook 1960) F UM -- 4x alternative source
Julia Caroline (Brockenbrough, 1990) NM
Kaye Player F
Lady of Spain (Lofthouse, 1966) NM
Lucky Strike (Van Veen, 1958) NM
Lydia (Greer, 1963) F NM
Markeeta's Flame (Markeeta, 1960) UM
Markeeta's Prize (Markeeta, 1970) UM
Melville
Newcomb's Sweetheart (Newcomb 1968) NM
Opal Thornton (Thornton) NM
Pearce's American Beauty (Pearce, 1930) F
Phyllis Korn (Korn, 1969) F DM
Pink Pearl (Waterer, 1892) F DM
Platinum Pearl (Greer, 1983) F NM
Queen Mary (Felix and Dijkhuis 1950) DM
Romilda (Hachmann 1990) NM
Rothenburg (von Martin, 1944)
Rwain (Colombel, 1993) F NM
Solidarity (Schannen, 1969) F UM
Souvenir de Doctor S. Endtz (Endtz 1924) DM
Steredenn (Colombel) NM
Sugar Pink (Greer, 1960) NM
Super Dog (Bones) NM
Taurus (Mossman, 1962) F UM
Topsvoort Pearl (sport, 1935)
Val d'Aulnay (Croux and Fils, 1984) F
Van (Van Veen, 1930) NM
Viscy (Hobbie 1950) UM
Walloper

4x Tetraploids

Antoon van Welie (Endtz, 1930) 3X2
Aristide Briand (Endtz 1950) 3XQ
Brigg's Red Star (Briggs) T
Cherry Cheesecake (Briggs) T *
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Red Walloper
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Summer Joy (Kehr) T
Super Nova (Briggs) T *
Trude Webster (Greer, 1960) 4x4
TT166
Very Berry (Greer, 1988) 4X2

Virgo

XXL (ID'Flor)

5x Pentaploids

Haithabu (Hachmann 1991) 4XQ

White Ginger (Barlup 2001) 4X3

F indicates a fertile triploid.

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P indicates a diploid with a polyploid ancestor.

S indicates a diploid with a tetraploid parent.

U indicates a diploid with a tendency to produce unreduced gametes.

DM indicates a triploid resulting from a triploid parent.

NM indicates a triploid resulting from a tetraploid parent.

UM indicates a triploid resulting from 2 diploid parents.

2X4 or 4X2 indicates a tetraploid resulting from a diploid and a tetraploid parent.

3X2 indicates a tetraploid resulting from a triploid and a diploid parent.

3X3 indicates a tetraploid resulting from 2 triploids parents.

3XQ indicates a tetraploid resulting from at least one triploid parent.

4X4 indicates a tetraploid resulting from 2 tetraploid parents.

4X3 indicates a tetraploid or pentaploid resulting from a tetraploid and a triploid parent.

4XQ indicates a tetraploid or pentaploid resulting from a tetraploid parent.

> John Perkins

> Salem, NH

>