

PAEONIA

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Volume 20, No.2

June 1989

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Editors: Chris and Lois Laning 553 West F Avenue Kalamazoo, MI.	Mutations, Chris Laning, . . . . . page 1 Letter from Al Rogers, . . . . . page 2 Persons Interested in Peonies, Living in Australia and New Zealand, . . . . . page 3 Letter from Art MacDonald, . . . . . page 5 Seed Distribution, Chris . . . . . page 6 Letter from Al Rogers and reply from Chris Laning, . . . . . page 7 Seidl's "Epistles", . . . . . page 8 Seedling Offer, Chris, . . . . . page 10
Suggested yearly contribution: \$2.50 in the U.S. \$3.00 in Canada \$4.00 in Europe, New Zealand, and Australia.	

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MUTATIONS

New characteristics appearing suddenly in a growing plant or a part of the plant is called a sport. This mutation is an unearned gift, an accidental event and not a result of plant breeding. The cause remains, at least for me, a mystery but a most happy event! While mutations may be caused by a change in a gene or its location on the chromosome (where breakage of the chromosome permits cross-over or structural rearrangement of its location), the process is invisible and possibly only theoretical but a very happy event. This type of mutation is heritable in many cases and may be retained in sexual propagation in its descendants (through seed production).

Some mutations can be retained by asexual propagation only, but this is also true of all cultivars. An example of this kind of a sport is the variegated leaves in the Hosta cultivars.

One Itoh in my garden has full double flowers of good bright yellow color. It sent out an underground stem (stolon) that produced a plant some eight inches from it that produces full double white flowers. This mutation has very large green leaves and is altogether more robust than its yellow progenitor. If phenotype is an indicator, it could well be a tetraploid. While this would be interesting, this would be no great breakthrough since the Itohs are sterile. As with others, this one will be propagated through division.

Many hybrids, especially the difficult crosses, have a measure of instability due to the difficulty of chromosome pairing. Under this sort of stress infertility is to be expected. With sufficient number of plants and over a period of time, an occasional seed may be produced so I suppose an occasional sport could appear. This may be a little far out — but to my thinking, this is a good reason for not rogueing the less beautiful peonies. Along with this wishful thinking is the fact that changes in flower shape and color appear as the seedling gets older and matures.

Walk through your flowering garden often and be occasionally pleasantly surprised.

- Chris

15425 S.W. Pleasant Hill Rd.  
Sherwood, Oregon 97140

October 10, 1988

Dear Chris:

Hope the two plants arrived O.K. We'd planted out all the roots of '**Heidi**' and I couldn't quickly find any with heavy calluses.

Bob Tischler doesn't keep parentage but he's almost sure it's a lactiflora. The only other lactifloras I know of are '**Gardenia**' and '**Moonstone**'. David Reath has a Nippon that does it — can't find the name.

We used a potato peeler to take "skin" off a set of roots, then soaked in Rootone solution last year. Looked at them yesterday and they were heavily callused.

'**Sugar n' Spice**', the only home product we have that's good enough to register. Same color as David's '**Royal Rose**' (which is very good here) but a different shape. Only one problem. It makes huge roots in two years that can only be divided by splitting. A planting piece will go to 4" in diameter and 30" long.

Am going to try digging them at one year to see if it will make salable plants. The roots planted two years ago are heavily callused. A lot of cultivars take three years to form eyes from roots. Pedigree unknown — tag had faded) but think it was from seed of the first year. Some of the seedbank seeds you sent the first year flowered. First divided the plant two years ago. This year we got 42 pp. Many carved off as yours.

As always,

Al Rogers

## NEW ZEALAND AND AUSTRALIA

There is a new surge of interest in peonies; both herbaceous and suffruticosa in New Zealand and Australia. The number of people in those areas is enough to form some kind of a peony organization where interested parties can correspond with each other, exchanging information, opinions, and maybe even plants and seeds. Wouldn't it be nice for you people to form a society of your own with your own "newsletter"! How does this sound to you for a title: "Peonies of the Underworld" - (I'm just joking.) But, of course, you would still be expected to remain in our Society too!

This is the list of names that has been recorded. There may be others that you "down under" people can add —

### NEW ZEALAND

Mrs. Julie Allan  
Marsal Nursery of "Gift Farm"  
Dunsandel R.D., Canterbury

Gordon Bailey  
Asst. Supt. of Parks and Rec.  
Borough of Gore, P.O. Box 8  
Gore, New Zealand

Mrs. Allison Buchanan  
"Castledowns", Dipton West R.D.  
Southland, New Zealand

Frank Cochrane  
Wyllies Crossing, 1 R.D.  
Dunedin, New Zealand

Mrs. T. S. Dunlop  
"Lovat Downs"  
Greta Valley R.D. 1  
North Canterbury, New Zealand

A. Jill Dyer  
No. 1 R.D. Wyndham  
New Zealand

Mrs. Peter Elworthy  
Craigmore R.D. 2  
Timaru, New Zealand

William Foster  
57 Parsonage Rd.  
Waimate, New Zealand

Bruce and Dorothy Hamilton  
Lake Hayes, No. 2 R.D.  
Queenstown, New Zealand

### AUSTRALIA

Michael Bentley  
"Tandara", Harley Rd.  
Crookwell 2583, Aus.

Bernard Chow  
283 Little Lonsdale St.  
Melbourne, Victoria 3000, Aus.

Mr. David Fisher  
30 Milton St, Bannockburn,  
Victoria, Aus.

Mrs. J. D. Hart  
32 Jubilee Ave.  
Blackheath, NSW 2785, Aus.

Helen Kavanaugh  
P.O. Box 46  
Echunga, S. Aus. 5153

Trevor Nottle  
"Walnut Hill"  
5 Walker St.  
Stirling, S. Aus. 5152

Peter P. Oppenheim  
R.M.B. E657  
Ballarat, Victoria  
Australia 3352

Beverly Phillips  
118 Swaine Ave.  
Toorak, Gardens Aus. 5065

NEW ZEALAND, cont.

Mr. R. E. Haworth  
P.O. Box 1937  
Palmerston North, New Zealand

E. M. (Mrs. L. A.) Hill  
5 Hunt St.  
Timaru, South Canterbury  
New Zealand

Derek L. Irvine  
10A Woodlands Hd.  
Timaru, New Zealand

Molly Lucas  
R.D. 4  
Balclutha, New Zealand

Alan J. Matchett  
Riccartin Riad  
R.D. 2, Mosgiel  
Otago, New Zealand

Mrs. Dorothy (John) McFarlane  
No. 9 R.D.  
Waimate, New Zealand

Walter Miller  
Fleming Rd., No. 1 R.D.  
Ngongotaha, New Zealand

John Parr  
7 Marion St.  
Macandrew Bay  
Dunedin, New Zealand

Paul Simmons  
31 Aotea TCE  
Christchurch 2  
New Zealand

Mrs. O. L. Slater  
Waitawa Orchard  
No. 4 R.D.  
Timaru, S. Canterbury  
New Zealand

AUSTRALIA, cont.

Ms. Tina Miljanovic  
5 Churangia Rd.  
Aldgate, So. Aus. 5154

Dr. George Pritchard  
119 Wynard St.  
Tumuto, New South Wales  
Australia

Peter Rafferty  
Horticulture School  
(Collingwood College)  
Oak Street, Parkville 3052  
Melbourne, Victoria, Aus.

Ian Charles Rennie  
68 Beach Rd.  
Kingsyon, Tasmania, Aus.

Mrs. Judy Roberts  
"Dewhurst"  
Bourkes Creek R.D.  
Upper Beaconsfield  
Victoria, Aus. 3808

Doug Ryeland  
122 Tranmere Rd.  
Howrah, Tasmania, Aus. 7018

W. J. Simpson  
"Wayside", 602 Nepean Highway  
Frankston, Victoria, Aus. 3199

Rob Timmers  
45 Moores Rd.  
Monbulk, Victoria, Aus. 3793

Mrs. Elizabeth D. Wale  
12 Cratloe Rd.  
Mt. Waverley  
Victoria, Aus. 3149

Mr. George Wilson  
197 Barkers Rd.  
Kew, 3101 Victoria, Aus.

San Ramon, CA 94585  
20 January 1989

Dear Chris:

Well I don't know how long ago I sent you any money, so I'll send a check along. I really enjoy your publication. I have to admit however that I do not always understand all that is in it. I'm strictly a dirt dauber, not too bright, but really enjoy my peonies. Sometimes I think I'm blessed, I have such a fine life.

You put a note in the last newsletter asking about *P. californica* and *P. brownii*. About 20 years ago I started looking with regard to obtaining said plants. I could not find a source for any cultivars. I did find three places that advertized seeds of these plants. I wrote to two of them over a period of three or four years. Each time I received a reply that none were in stock - "try again next year!" I finally gave up — the third place was about 175 miles from here, so I drove up and was able to obtain about 12 seeds. While I was there I asked if I could see the plants the seeds were obtained from. I was told a story that I did not believe. So I feel that the seeds I did obtain were not actually what they were claimed to be. Chris, I will go through my records and see if I can come up with something. Needless to say I never got anything from the seed.

It seems to me that some time back I read in the Bulletin several articles by Betty Halas about these plants. I had thought to write to her and see if she has a source!

As to my efforts I place the seeds in a redwood box 4' x 12' x 1', no cover. In this I put milled sphagnum moss. Scatter the seeds and stack back. Depending upon how cold the winter is usually determines numbers of seedlings (I put the seeds in the moss around the 1st of November). Generally around March I begin to see some growth. The box is just set on the ground, no bottom. I water often to keep the top more moist. Of course water runs right thru and out the bottom of the box. Once the moss has been soaked, it is very easy to keep in a moist condition. I'd estimate approx. 50% germination - tree peony - 20 to 30% on herbaceous. I do not have any troubles to speak of with tree peonies other than when I goof up. Herbaceous are another story. I have maybe 1 or 2 late varieties that bloom well. Thrips and hot weather take their toll.

I grow mostly earlies and mid-season. My season runs from March scarce T.P. bloom thru June scarce bloom. April and May are always full bloom. I have a micro climate where I live. From November to May approximately 20 nights of frost and some freezing per month. So I think the chilling factor is here. I do plant my herbaceous with the eyes at ground level and try to have them exposed during the winter months so that what cold we have can get to them. In the summer I use rice hulls and mushroom mulch to keep the roots cool. I have to make a mixture of rice and mushroom, the mushroom is heavy and tends to keep the rice hulls from blowing. I live one range of foothills from the Bay Area. To the west is a canyon through the foot hills. The situation here is similar to the desert - hot days - cool cool nights. As the nights are clear and as the days are hot, at night the hot air rises and escapes and it

*(Art MacDonald's letter, continued)*

in turn is replaced by the cool air off of the ocean. A good breeze comes up every afternoon as this cooling takes place. We probably only have 10 or 15 nights in the summer when you can go out in the yard after dark without a sweater on. The ocean temperature is usually in the low 50's. This tends to bring our temperature at night into the high 50's and 60's.

I retired last year, and now that I've plenty of time I'm watering much more. I use well water which is on the alkali side and of course the mulch I use is to the acid side and it balances out rather well.

Red Charm is my favorite - of all. Hope you have a good season.

Best regards,  
Big Art (MacDonald, 7470 Northland Ave.  
San Ramon, CA 94583

#### SEED DISTRIBUTION.

Seeds to be collected from my garden will include just three groups - lactiflora, hybrids and suffruticosa (tree peony). These will be available in early September for gardeners interested in fall planting.

Lactiflora seeds collected from selected clones, colors being the regular standard white, red, and pink. Hybrids are from the advanced generation strains being developed for a new range of colors and plant forms.

Hybrid strains being developed have the following parentages:

- |                |   |
|----------------|---|
| a. lactiflora  | d. mlokosewitschii                                  |
| b. officinalis | e. lobata   |
| c. macrophylla | f. other species are used to enhance the gene pool. |

Since seedlings may or may not resemble the parents, only general similarities can be expected in colors, forms, and approximate flowering dates.

Species seeds will not be available and seeds from yellow flowered clones are in very short supply.

Seeds shipped in September will not be completely dry and may start to mold. This does no damage and can be removed with a household bleach such as Clorox (containing hydrogen peroxide). If seeds are planted in early September, about 50% can be expected to germinate the following spring — the remainder the following year. That is why early shipments are sometimes desirable.

We can expect generous amounts of seed from other contributors for distribution but will probably be available too late for fall planting — but spring planting is more reliable anyway though taking one year longer. Please send \$1.50 (in U.S.) for packaging and mailing costs; \$1.50 plus postage overseas.

- Chris

5-26-89

TO: PAEONIA

Dear Chris and Lois -

What are white peonies?

This has been an unusual spring here at Caprice. After a cold winter, for us, with no real break till mid-March, we had a warm spell in early April. This brought the Suffruticosas into bloom early as well as the early hybrids, things like '**Sanctus**', '**Chalice**', '**Seraphim**', '**Campagna**' were all in bloom in late April. Color all good clean white — weather or inheritance?

Then a colder cloudy May and all our Lactiflora whites like '**Mother's Choice**', '**Festiva Maxima**', '**Kelway's Glorious**', '**Mary E. Nicholls**', '**Stardust**', '**Walter Marx**', etc., all open pink, some nearly the shade of Mrs. F.D.R. and the pink on some lasts for several days before bleaching to white.

My supposition is that these are all actually dilute pinks and that warm weather "removes" the pink influence. See no change though in the red flecks in some, or for that matter in the shade of pinks in things like Mrs. F.D.R.

Can anyone comment on this?

- Al Rogers

Dear Al:

You are probably correct in your observations. Most whites, quite likely, are only washed-out pinks, however the pink thereby adding just a bit of cream to the white blooms. How this relates to the hybridizer and hybrids as of now gets little attention but maybe it is worth investigating.

Dr. David Reath has, or had, a white lactiflora that seemed completely white. I have tree peony blooms that are all white, e.g. petals, carpels, stigmas, filaments, though the pollen is yellow.

Could it be that the true whites are albinos? Are officinalis alba plena, officinalis decora alba, etc., are all albinos? We will have to check into this possibility. Of course this applies only to the flower. The plant itself will have green leaves because of the chlorophyll without which the plant could not exist.

- Chris

## 'ROCK'S VARIETY' vs. 'JOSEPH ROCK'

The picture at the right is from the Wayside catalog, "A Gardener's Treasury", Spring 1988, p12; I've outlined the petals to reproduce it more clearly for the newsletter. There are about 30 petals but note that it is described as "single" in the caption. For many years I've grown ROCK'S VARIETY, the 10-petaled single clone widely distributed by the Reath Nursery. I've always assumed that the variety JOSEPH ROCK sold by Wayside was that clone, but seeing this picture makes me wonder. (I know David Reath has a semi-double mutation of RV but I believe it is still unnamed and undistributed.) I think the two names in question should both be registered if they are indeed different. And if not, one name registered and the Wayside catalog staff alerted either way.

I had bloomed three RV seedlings and unfortunately lost two of them, TP-1 and TP-2, this past season due to dryness and/or herbicide damage. The third was lost to herbicide damage much earlier. I had been using them in back-crossing to RV and selling some of the seed. I am now in need of pollen from other RV seedlings. (RV does not self-fertilize readily.)

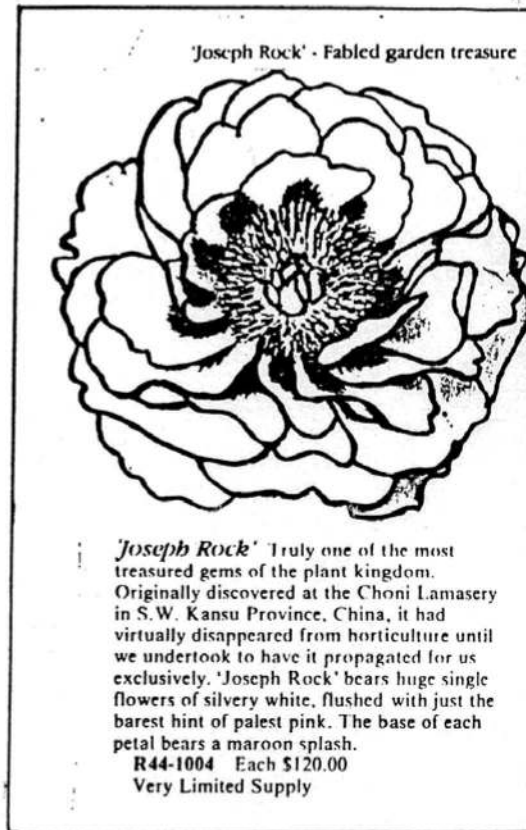
### SEED PRICES

The items at the right were clipped from pp. 122 and 173 of the 1989 copy of Thompson and Morgan catalog. The 'Border Mixture' I'm sure is lactiflora. Note especially the lobata price: \$2 per seed. I've been asking that price for shrub hybrid seed, justified because of their rareness. But lobata? Anybody with two different clones can raise seeds readily. Perhaps the price is due to the fallen dollar overseas, T&M being an English firm. PAEONIANS may wish to make some deliberate lobata crosses, sell the seeds to T&M, and help alleviate the U.S. trade imbalance.

### also — DESPERATELY SEEKING POLLEN

- (1) ROCK'S VAR. Seedlings, —(2) P. lutea Ludlowii, —(3) P. mloko. or daurica.

William J. Seidl, 732 South 19 St., Manitowoc, WI 54220



### PAEONIA—Ranunculaceae Paeony

*Moist loam. . . Sun or part shade. 5—9*

Sow cold frame; May not germ. till following spring. F/F

8504 *mlokoewitschii* 18—24in. Fl. Spring HP

Large, lemon yellow flowers with golden anthers above soft grey green foliage, striking seed pods; Sunny position, reasonable drainage, quite rare. Recommended. (5 seeds) \$4.95

8519 *peregrina* (syn. *officinalis lobata*) 2ft. Fl. L. Spring HP

NEW. A very lovely species with tall, single bright salmon scarlet blooms above glossy fresh green leaves. (3 seeds) \$5.95

8502 *officinalis* 24x24in. Fl. L. Spring/E. Sum. HP

Classical scarlet flowers up to 5in. across, splendid foliage, Long lived, handsome border enhancer. (Illust.) (3 seeds) \$5.45

8505 'Border Mixture' 24in. Fl. Spr/Sum HP

A fine mix chosen from the best singles, and semi-doubles with large flowers and splendid foliage. (5 seeds) \$8.25

TREE PAEONIA see p 173

### PAEONIA—Ranunculaceae Paeony

*Well drained. . . Sun, shelter.*

Double Dorm. 12 weeks warm moist—12 weeks fridge; C/F

☆ 9584 *lutea ludlowii* 6x4ft. Deciduous 5—8 HSh

Bright golden saucer-shaped flowers shine through young leaves in early summer. Some shelter. \$4.95



THE APS 1976-86 CHECKLIST: SUMMARY & ANALYSIS

Bill Seidl

The table on page 10 includes all entries in the checklist (herbaceous cv) except CHINA ROSE and RUSSI MAJOR. Included are FAN TAN, CREAM DELIGHT, and DUTCH DWARF, though named before 1976. Some cultivars, esp. Krekler's, were not identified as to lacti or hybrid, so guesses were made. FAN TAN was counted as a hybrid but is probably a species clone. ELIZA LUNDY (offici.) was counted in the lacti total. TINY TIM and PEACH DELIGHT (both ascribed to Smirnow as the originator) were counted as hybrids, with a "?". SPARKLING WINDFLOWER (Saunders/Reath), not in any checklist, was also overlooked here; it's a hybrid.

I began this tabulation with the preconceived notion that, for such a recent time period, interest among breeders had swung away from lactis in favor of hybrids. But the first totals favored lactis by a small margin, 189 to 178. Removing Krekler's numbers as having undue influence shifted the balance even more in favor of lactis, 82 to 0. Removing the big three in lacti breeding (Klehm, Bigger, Marx), the totals swung in favor of hybrids, 32:38. Since Krekler's figures actually favor hybrids (a surprise to me), restoring his numbers throws the totals even more in favor of hybrids, 139:176. And so my preconceived notion is verified. Amazing what you can make statistics do for you!

Not counting Krekler's overwhelming numbers, 124 registered cultivars is a very modest number, about a dozen per year during that decade. (Three dozen per year when including Krekler's, whose registrations doubles everybody else's combined.) Contrast that with 3500 daylily registrations in the three years 1985, 1986, 1987!

	TOTAL	HERBACEOUS		
		LACTI	HYB	I-HYB
All hybridizers .....	369	189	178	2
excl. KREKLER	124	82	40	2
excl. KREKLER and KLEHM, BIGGER, MARX	72	32	38	2
excl. KLEHM, BIGGER, MARX	317	139	176	2

In the shrub (tree) peonies, there are even more modest figures. Almost a dearth!

Further analysis and conclusions are left to the reader.

	AB	C-G	G-L	M-P	P-W	TOTAL	SHRUB	
	32	32	33	34	35		SUFF'A	HYB.
DAPHNIS	7	3	7	7	7	31	—	31
SMIRNOW	1	2	2	1	3	9	9	—
GRATWICK	—	3	1	1	2	7	6	1
REATH	—	2	—	—	—	2	—	2
SAUNDERS	—	1	—	—	—	1	—	1
SEIDL	1	—	—	—	—	1	—	1
KREKLER	—	—	1	—	—	1	—	1
GILBERTSON	—	—	—	1	—	1	—	1
	9	11	11	10	12	53	15	38

PAGE NO:	A	AB	B	C	C	CD	DE	EF	F	FG	GH	IJK	KL	LM	M	MN	OP	P	PQ	QR	R	S	S	ST	TUV	WX	KYZ	TOTAL	LACTI	HYB:	I-HYB.
KREKLER	6	14	6	5	5	6	12	6	9	8	15	7	12	8	7	12	16	7	10	6	5	6	9	9	14	10	15	245	107	138	—
KLEHM	2	-	4	4	-	-	-	1	1	-	-	1	-	1	-	2	-	3	-	2	-	-	-	-	-	2	-	23	21	2	—
BIGGER	1	-	-	1	1	-	-	1	-	1	-	-	1	-	1	-	2	-	1	-	-	1	2	1	1	-	-	15	15	—	—
MARX	-	-	-	-	1	1	-	1	1	-	3	1	-	2	-	1	-	-	-	1	-	-	-	-	2	-	-	14	14	—	—
GILBERTSON	1	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	1	8	7	1	—
REATH	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1	-	1	1	1	-	1	-	1	-	8	—	8	—
SCHMIDT	-	1	-	-	-	-	-	1	1	-	-	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	7	7	—	—
COUSINS	-	-	-	-	1	-	1	-	-	1	-	1	-	-	-	-	-	-	1	-	1	1	-	-	-	-	-	7	—	7	—
HOLLINGSWORTH	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	6	1	3	2
PEES	-	-	-	-	-	1	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	4	—	—
STYER	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	—	—
MICHAU	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	3	—	—
WISSING	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	3	-	3	—
SMIRNOW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	3	1	2	—
PEHRSON	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	2	—
LANING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	2	—
RUDOLPH	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	-	2	—
Others *	-	V	-	•	w	-	•	A	-	-	-	T	-	-	S	W	-	-	•	G	H	-	-	-	-	C	-	14	6	8	—
* • Unknown	12	17	11	11	12	11	15	12	13	12	13	14	15	13	11	17	19	13	14	13	9	12	14	14	17	14	16	369	189	178	2
V=Varner w=Wild																											82	40	2		
A=Aldritt J=Tomlinson S=Spangler W=Wolf G=Glascock H=Harrell C=Christenson																											124				

SEEDLING OFFER

Here is an offer for peony lovers who want to enjoy anticipating the first bloom on a peony seedling but would rather not wait four years for bloom from seeds planted next September?

- One year old roots \$10.00 per dozen
- two year old roots \$15.00 per dozen
- three year old roots \$20.00 per dozen

You have a choice of either lactifloras or advanced generation tetraploid seedlings.

Chris Laning  
553 West F Avenue  
Kalamazoo, MI. 49007