

Supplemental Table S1 The detailed information of *Lagerstroemia* accessions used in this study.

No.	Cultivar name	Growth habit	Flower color (RHS)	Parentage or Sources	Region
1	Xiao Hua Zi	Tree	Red Purple N66D	<i>L. indica</i> , <i>L. subcostata</i>	EA
2	<i>L. limii</i>	Tree	Blue pink 73B	<i>L. limii</i>	EA
3	<i>L. excelsa</i>	Tree	White NN155C	<i>L. excelsa</i>	EA
4	<i>L. subcostata</i>	Tree	White NN155C	<i>L. subcostata</i>	EA
5	Best Red	Shrub	Red 46B	<i>L. indica</i> , <i>L. fauriei</i>	NA
6	Dallas Red	Shrub	Red 46B	<i>L. indica</i>	NA
7	Catawba	Shrub	Red Purple 72A	<i>L. indica</i>	NA
8	Yuma	Tree	Purple 76A	<i>L. indica</i> 3/8, <i>L. fauriei</i> 3/8, <i>L. amabilis</i> 1/4	NA
9	Victor	Shrub	Red Purple 63A	<i>L. indica</i>	NA
10	Purple Velvet	Shrub	Purple N78A	<i>L. indica</i>	NA
11	New Orleans	Shrub	Purple N78B	<i>L. indica</i>	NA
12	Sacramento	Dwarf	Red Purple 67B	<i>L. indica</i>	NA
13	Delta Blush	Shrub	Red Purple 68A	<i>L. indica</i>	NA
14	Houston	Dwarf	Red Purple 67C	<i>L. indica</i>	NA
15	Mardi Gras	Shrub	Purple Violet N80B	<i>L. indica</i>	NA
16	Baton Rouge	Dwarf	Red Purple 63A	<i>L. indica</i>	NA
17	Creole	Dwarf	Red Purple 63B	<i>L. indica</i>	NA
18	Xiao Hua Bai	Tree	White 155B	<i>L. indica</i>	EA
19	Chisam Fire	Dwarf	Red Purple 63A	<i>L. indica</i>	NA
20	Chickasaw	Dwarf	Red Purple 64B	<i>L. indica</i> 5/8, <i>L. fauriei</i> 3/8	NA
21	David Hanging Basket	Shrub	Red Purple 62C and 68B	<i>L. indica</i>	NA
22	Apalachee	Shrub	Purple 75A	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
23	Mauve	Shrub	Purple 75A	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
24	Zhi Zhi Zi	Shrub	Violet N81C	<i>L. indica</i>	EA
25	Muskogee	Tree	Red Purple 63C	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
26	Osage	Tree	Red Purple 68B	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
27	Comanche	Tree	Red Purple N66A	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	NA
28	Queens Lace	Dwarf	Red 53B and	<i>L. indica</i>	NA

			White NN155C		
29	William Toovey	Tree	Red Purple N66B	<i>L. indica</i>	NA
30	Pecos	Shrub	Red Purple 72B	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
31	Okmulgee	Dwarf	Red 47A	<i>L. indica</i>	NA
32	Acoma	Shrub	White N155C	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	NA
33	Pure White	Shrub	White N155C	<i>L. indica</i> , <i>L. fauriei</i>	NA
34	Near East	Shrub	Red Purple N66A	<i>L. indica</i>	EA
35	Prairie Lace	Shrub	Red 52A and	<i>L. indica</i>	NA
			White NN155C		
36	Tonto	Shrub	Red Purple 61B	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	NA
37	Velma's Royal Delight	Shrub	Red Purple 72A	<i>L. indica</i>	NA
38	Powhatan	Shrub	Purple N78D	<i>L. indica</i>	NA
39	Lafayette	Shrub	Purple 76B	<i>L. indica</i>	NA
40	Bourbon Street	Dwarf	Red Purple 61D	<i>L. indica</i>	NA
41	Bayou Marie	Dwarf	Red Purple 68B	<i>L. indica</i>	NA
42	Cordon Bleu	Dwarf	Purple 76A	<i>L. indica</i>	NA
43	Arapahoe	Shrub	Purple N78D	<i>L. indica</i> 11/16, <i>L. fauriei</i> 1/16, <i>L. limii</i> 1/4	NA
44	Zi Jin	Tree	Purple 77C	<i>L. indica</i>	EA
45	Hot Pink	Shrub	Blue pink 67C	<i>L. indica</i>	NA
46	Crimson Red	Shrub	Red 46B	<i>L. indica</i> , <i>L. fauriei</i>	NA
47	Blush	Shrub	Blue Violet 76A	<i>L. indica</i> , <i>L. fauriei</i>	NA
48	Red Hot	Shrub	Red 46B	<i>L. indica</i> , <i>L. fauriei</i>	NA
49	Pocomoke	Dwarf	Red Purple 67B	<i>L. indica</i> 5/8, <i>L. fauriei</i> 3/8	NA
50	<i>L. fauriei</i>	Tree	White N155C	<i>L. fauriei</i>	EA
51	<i>L. caudata</i>	Tree	White N155C	<i>L. caudata</i>	EA
52	<i>L. speciosa</i>	Tree	Purple 78B	<i>L. speciosa</i>	EA
53	Dynamite	Tree	Red 53B	<i>L. indica</i>	NA
54	Rosea Nova	Dwarf	Red Purple 68A	<i>L. indica</i>	EU
55	Niner	Dwarf	Violet 85D	<i>L. indica</i>	EU
56	Hopi	Shrub	Red Purple 68A	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	NA
57	Bai Mi Xiang	Tree	White NN155C	<i>L. indica</i>	EA
58	Bicolor	Shrub	Red Purple N66B and White NN155C	<i>L. indica</i>	NA

59	Caddo	Shrub	Red Purple 58C	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
60	Qian Ceng Fei Xue	Shrub	Red Purple 68B	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
61	Zi Yan	Shrub	Red Purple N74C	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
62	Natchez	Shrub	Red Purple 65A	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	NA
63	F ₁ -1	Shrub	Red Purple 68A	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
64	F ₁ -2	Shrub	Purple 76A	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
65	F ₁ -3	Shrub	Red Purple 67B	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
66	F ₁ -4	Shrub	White N155C	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
67	F ₁ -5	Shrub	Purple Violet N80B	<i>L. indica</i> 1/2, <i>L. fauriei</i> 1/2	EA
68	BC ₁ -1	Shrub	Purple N78D	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	EA
69	BC ₁ -2	Shrub	Red Purple 58C	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	EA
70	BC ₁ -3	Shrub	White 155B	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	EA
71	BC ₁ -4	Shrub	Purple 76A	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	EA
72	BC ₁ -5	Shrub	White N155C	<i>L. indica</i> 3/4, <i>L. fauriei</i> 1/4	EA
73	Feng Hua Jue Dai	Tree	Purple Violet N80C	<i>L. indica</i> 1/2, <i>L. speciosa</i> 1/2	EA
