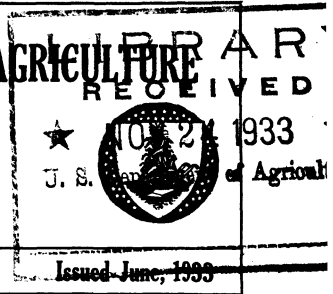


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UNITED STATES DEPARTMENT OF AGRICULTURE



INVENTORY No. 109



Washington, D. C.

Issued June, 1933

PLANT MATERIAL INTRODUCED BY THE DIVISION OF FOREIGN
PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, OCTOBER 1
TO DECEMBER 31, 1931 (Nos. 94283-95551)

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INTRODUCTORY STATEMENT

This inventory, covering the period from October 1 to December 31, 1931, and containing 1,269 numbers (94283-95551), records almost altogether material that was brought in for department workers. This is particularly exemplified by the enormous collections of cereals presented by the Union of Soviet Socialist Republics through J. G. Dickson, University of Wisconsin, Madison, Wis. This remarkable collection contains 815 numbers (94302-94762, 94787-94922, 95091-95308) of barley, emmer, and many types of wheat, not only cultivated forms and hybrids produced in the Union of Soviet Socialist Republics but wild examples from many original sources.

The Union of Soviet Socialist Republics has also contributed a valuable collection of pistache seeds from Turkmenistan, including fruits from wild and from cultivated trees (94939-95046), an extensive and useful collection of wild and cultivated plums (95049-95063) collected through the Caucasus, and a collection of herbaceous plants and grasses (94923-94936) of possible value as sand binders or as grasses for poor and arid land.

The study of *Ficus* species is augmented by the introduction from the Botanic Gardens, Buitenzorg, Java, of *Ficus korthalsii*, *F. procera crassiramea*, *F. pseudo-acumtrophylla*, *F. recurva*, and *F. rigida* (94296-94300); from R. E. Holtum, Director, Singapore Botanic Garden, Straits Settlements, of *F. alba* and *F. chrysocarpa* (95089, 95090); from Arthur F. Fischer, Director of Forestry, Department of Agriculture and Natural Resources, Philippine Islands, of *F. minahassae*, *F. nota*, and *F. odorata* (95369-95371).

The studies in palms are represented by *Coccothrinax argentea* and *Pawrotis wrightii* (95047-95048), from Mrs. F. S. Earle, Herradura, Cuba; *Livistona mariae* (95077), from the Council for Scientific and Industrial Research, Canberra, Australia; and *Livistona hoogenortpii* (95088), from Dr. Robert M. Gray, Harvard Botanic Garden, Soledad, Cuba.

Various ornamentals have been received, notably an interesting set of Australian plants from Ida Richardson, Perth, Western Australia (95314-95344), including some less-known Acacias, Eucalyptus, Hakea, Melaleuca, and Hibiscus. But possibly the most interesting contributions are the seeds presented by Maj. Lionel de Rothschild, London, England, from his share in the Forrest Expedition to China, the last exploring trip of that veteran plant collector.

The botanical determinations of these introductions have been made and the nomenclature determined by H. C. Skeels, who has had general supervision of this inventory.

KNOWLES A. RYERSON,
Principal Horticulturist, in Charge.

DIVISION OF FOREIGN PLANT INTRODUCTION,
Washington, D. C., November 10, 1932.

I N V E N T O R Y ¹

94283. GOSSYPIUM sp. Malvaceae.
Cotton.

From Bangui, French Equatorial Africa. Seeds presented by the Compagnie Cotonniere Equatoriale Francaise, through T. H. Kearney, Bureau of Plant Industry. Received October 2, 1931.

Native cotton, introduced for the use of department specialists working with the breeding of Egyptian cotton.

94284 and 94285.

From Manchuria. Seeds purchased from Manchu Nosan Shokai (Inc.), wholesale seed growers and dealers, Dairen. Received October 2, 1931.

94284. VICIA VILLOSA Roth. Fabaceae.
Hairy vetch.

Manchurian-grown seed.

94285. VIGNA SINENSIS (Torner) Savi. Fabaceae.
Cowpea.

Manchurian-grown seed.

94286 to 94288.

From the Union of Soviet Socialist Republics. Seeds presented by the chief, Bureau of Introduction, Leningrad, at the request of Dr. V. P. Alekseev, Subtropical Branch, Sukhum, Caucasus. Received October 2, 1931.

94286. PASSIFLORA EDULIS Sims. Passifloraceae.
Purple granadilla.

No. 41399. A small woody herbaceous vine, climbing by tendrils, that produces white flowers tinged with purple, followed by egg-shaped edible fruits. These may be eaten fresh or cooked or used as flavoring. Hardy only in almost frost-free regions.

For previous introduction see 49475.

94287 and 94288. PSIDIUM CATTLEIANUM Sabine. Myrtaceae. Strawberry guava.

94287. No. 41400. A red-fruited form.

94288. No. 41401. A yellow-fruited form.

94289. PRUNUS ARMENIACA L. Amygdalaceae.
Apricot.

From China. Seeds presented by W. M. Hayes, Tenghsun, Shantung. Received October 5, 1931.

Apricot kernels of an unusual shape.

94290 to 94293. MANGIFERA INDICA L. Anacardiaceae.
Mango.

From Hawaii. Scions presented by W. T. Pope, senior horticulturist, Office of Experiment Stations, Honolulu. Received October 12, 1931.

94290. Holt. 94292. Mulgoda.

94291. Jamshedi. 94293. Whitney.

94294. PODOPHYLLUM EMODI Wall. Berberidaceae. Himalayan mayapple.

From India. Seeds presented by the conservator of forests, Chamba, Chamba State. Received October 12, 1931.

A herbaceous perennial about a foot high, native to India, much like our native species, with leaves 5-lobed to 7-lobed, marbled and shaded with deep bronze in spring; the flowers, pale rose to white, are followed by egg-shaped fruits of deep reddish color.

For previous introduction see 46092.

94295. CALAMAGROSTIS EPIGEJOS (L.) Roth. Poaceae.
Grass.

From Harbin, Manchuria. Seeds purchased from Mr. Rossiter and sent through Owen L. Dawson, Agricultural Commissioner, Shanghai, China. Received October 13, 1931.

A stout perennial grass, native to Manchuria, which grows on rather poor soil and is rather abundant.

For previous introduction see 90746.

94296 to 94300. FICUS spp. Moraceae.
Fig.

From Java. Seeds presented by the curator, Buitenzorg Botanic Gardens. Received October 14, 1931.

¹ It should be understood that the names of horticultural varieties of fruits, vegetables, cereals, and other plants used in this inventory are those under which the material was received when introduced by the Division of Foreign Plant Introduction, and further, that the printing of such names here does not constitute their official publication and adoption in this country. As the different varieties are studied, their entrance into the American trade forecast, and the use of varietal names for them in American literature becomes necessary, the foreign varietal designations appearing in this inventory will be subject to change with a view to bringing the forms of the names into harmony with recognized horticultural nomenclature.

It is a well-known fact that botanical descriptions, both technical and economic, seldom mention the seeds at all and rarely describe them in such a way as to make possible identification from the seeds alone. Many of the unusual plants listed in these inventories are appearing in this country for the first time, and there are no seed samples or herbarium specimens with ripe seeds with which the new arrivals may be compared. The only identification possible is to see that the sample received resembles seeds of other species of the same genus or of related genera. The responsibility for the identifications, therefore, must necessarily often rest with the person sending the material. If there is any question regarding the correctness of the identification of any plant received from this division, herbarium specimens of leaves and flowers should be sent in, so that definite identification can be made.

94296 to 94300—Continued.

94296. *FICUS KORTHALSII* Miquel.

A wild fig from southern Borneo, which resembles *Ficus elastica* in foliage and habit. The leaves up to 8 inches long are rigid and leathery, and the ellipsoid fruits are nearly an inch in length.

For previous introduction see 68857.

94297. *FICUS PROCERA CRASSIRAMEA* (Miquel) King.

A large tree with coriaceous narrowly elliptic to ovate leaves having thickened and slightly recurved edges. The sessile globular fruits, one-half inch in diameter, are subtended by three fleshy bracts as long as the fruit. It is native to Java.

94298. *FICUS PSEUDO-ACAMPTOPHYLLA* Valet.

A large tree with rufous-scurfy branchlets, obovate-oblong coriaceous leaves 3 to 6 inches long, and slightly flattened globose fruits about a quarter of an inch in diameter. It is native to Java.

94299. *FICUS RECURVA* Blume.

A climbing shrub, epiphytic or clambering over rocks, native to the Malay Archipelago. The young shoots are villos; the elliptic to lanceolate, thinly coriaceous leaves are 3 to 4 inches long, and the small orange-yellow figs are in pairs in the axils of the leaves.

94300. *FICUS RIGIDA* Miquel.

An epiphytic shrub or small tree with narrow leathery leaves about 6 inches long. The orange-yellow fruits, one-half inch in diameter, are white spotted and are sessile in pairs at the ends of the branchlets.

For previous introduction see 72596.

94301 to 94762.

From the Union of Soviet Socialist Republics. Seeds obtained by J. G. Dickson, professor of plant pathology, College of Agriculture, Madison, Wis., and agent in cereal investigations, United States Department of Agriculture. Received November 20, 1930. Numbered in October, 1931.

94301. *AEGILOPS CYLINDRICA* Host. Poaceae.

No. 46. Collected at Erivan, Armenia. A purple type.

94302 to 94333. *SECALE CEREALE* L. Poaceae. Rye.

94302. No. 2, white chaff. Collected at Erivan, Armenia.

94303. No. —. From Kostek, Caucasia. A winter rye.

94304. No. 2, brown chaff. From Erivan, Armenia.

94305. No. 4. From Turkish Armenia. A winter rye.

94306. No. 10. From Erivan, Armenia.

94307. No. 31. From Saratov. A winter rye.

94308. No. 34. From Saratov. A hybrid winter-resistant rye.

94309. No. 35. Collected at Kharkov, Asia Minor, in 1929. A winter rye.

94310. No. 39. From Yugoslavia.

94301 to 94762—Continued.

94311. No. 42. From the region around Erivan, Armenia.

94312. No. 23. From Kostek. A winter rye.

94313. No. 44. Collected at a high altitude near Erivan, Armenia.

94314. No. 45. A winter rye collected at a high altitude near Erivan, Armenia.

94315. No. 53. A winter rye from Erivan, Armenia.

94316. No. 55. From Erivan, Armenia.

94317. No. 304 W1 679. From the Dekaprilovitch collection at Tiflis, Georgia.

94318. No. 305 W1 680. From the Dekaprilovitch collection at Tiflis, Georgia.

94319. No. 344. Collected at Otrada, Kubanska.

94320. No. 345. Early Krugminsk. Collected at Otrada, Kubanska.

94321. No. D570. *Vyatka* variety. From Leningrad.

94322. No. D581. *Vyatka*. A winter variety. From Leningrad.

94323. No. 551. *Landiog*. From Svalof.

94324. No. 552. From Svalof.

94325. No. 553. From Svalof.

94326. No. 554. From Svalof.

94327. No. 555. Svalof No. 0801. From Svalof.

94328. No. 556. *Stjarnrag* rye. From Svalof.

94329. No. 557. The standard winter rye. From Svalof.

94330. No. 558. Svalof No. 0280. From Svalof.

94331. No. 559. *Svalof*. From Svalof.

94332. No. 560. *Rye Svalof*. From Svalof.

94333. No. 561. Svalof No. 816. From Svalof.

94334 to 94762. *TRITICUM* spp. Poaceae.

94334 to 94601. *TRITICUM AESTIVUM* L. (*T. vulgare* Vill.). Common wheat.

94334. 1BSW. Source not known.

94335. 1BSR. Source not known.

94336. No. 3. Winter wheat from Erivan, Armenia.

94337. No. 5. Winter wheat from Armenia.

94338. No. 6. Winter wheat from Armenia.

94339. No. 7. Winter wheat from Armenia.

94340. No. 8. Winter wheat from Armenia.

94341. No. 9. Winter wheat from Armenia.

94342. No. 12. Winter wheat from the Vavilov South African collection.

94301 to 94762—Continued.

94343. No. 13BSW. Winter wheat from Gonzah, Armenia.
- 94344 and 94345. *Reasante*. Winter wheat from the original Flemish collection. Collected at Gonzah, Armenia.
94344. No. 14BSW.
94345. No. 15.
94346. No. 17. Siberian spring wheat from Gonzah, Armenia.
- 94347 and 94348. Winter wheat from a South African collection at Gonzah, Armenia.
94347. No. 19.
94348. No. 20AWS.
94349. No. 22. Winter wheat from Gonzah, Armenia.
94350. No. 33. Winter wheat from Saratov.
94351. No. 36. Winter wheat from Saratov.
- 94352 to 94354. A collection of black-stripe winter wheat from Armenia.
94352. No. 39Bs.
94353. No. 39BPW.
94354. No. 39BSW.
- 94355 to 94358. Winter wheat from Erivan, Armenia.
94355. No. 40. *Schroeder*.
94356. No. 41.
94357. No. 48.
94358. No. 51. Originally from Abyssinia.
- 94359 and 94360. Winter wheat from Odessa.
94359. No. 52ASW.
94360. No. 52BSW.
94361. No. 54. Rust-resistant winter wheat from Kiev.
94362. No. 58. Winter wheat, selection No. 392. The highest-yielding wheat in the District of Krasnodar.
- 94363 and 94364. Winter wheat, collected at a high altitude near Erivan, Armenia.
94363. No. 59BS. Black stripe.
94364. No. 59BSW.
94365. No. 60. Winter wheat from Erivan, Armenia.
94366. No. 61BSW. Winter wheat, collected at a high altitude near Erivan, Armenia.
- 94367 and 94368. Winter wheat from Erivan, Armenia.
94367. No. 61 club BP.
94368. No. 61APW.
94369. No. 62. Meister selection of winter wheat from Saratov.
- 94370 to 94380. Winter wheat from Erivan, Armenia.
94370. No. 63.
94371. No. 65BSW.

94301 to 94762—Continued.

94372. No. 65BPR.
94373. No. 65BPW.
94374. No. 65BSR.
94375. No. 66BPR.
94376. No. 66APR.
94377. No. 66BPW.
94378. No. 66ASW.
94379. No. 66BSW.
94380. No. 66BSR.
94381. No. 67. Bronz winter wheat from Bristol, England.
94382. No. 43. From Erivan, Armenia.
- 94383 to 94388. From Stanton, England.
94383. No. 68. *Square head*.
94384. No. 69. A collection of rust-resistant varieties.
94385. No. 70. Winter wheat.
- 94386 to 94388. Mixed types of winter wheat.
94386. No. 71ASW.
94387. No. 71ASR.
94388. No. 71APW.
- 94389 to 94392. Winter wheat from Bristol, England.
94389. No. 72. *Square head*.
- 94390 to 94392. A collection of mixed varieties.
94390. No. 73APW.
94391. No. 73ASW.
94392. No. 73ASR.
- 94393 and 94394. Winter wheat from Stanton, England.
94393. No. 74. *Bronz head*.
94394. No. 75. *Square head*.
- 94395 to 94413. Winter wheat from Bulgaria.
94395. No. 76.
94396. No. 77.
94397. No. 78. Selection N.
94398. No. 79. Experiment station variety *Sivata*.
94399. No. 80.
94400. No. 81.
94401. No. 82.
94402. No. 83.
94403. No. 84. Variety *Knica*. A selection of winter wheat from the North Bulgaria Experiment Station.
94404. No. 85.
94405. No. 86. A mixed sample of wheat and rye.
- 94406 to 94413. Pure line winter wheat from the North Bulgaria Experiment Station.
94406. No. 87. Experiment Station No. 7.

94301 to 94762—Continued.

94407. No. 88. Experiment Station No. 14.
 94408. No. 89. Experiment Station No. 16.
 94409. No. 90. Experiment Station No. 159.
 94410. No. 91. Experiment Station No. 84 Peasant.
 94411. No. 92. Experiment Station No. 84.
 94412. No. 93. Hybrid native × No. 16.
 94413. No. 94. Experiment Station No. 16 × native.
 94414 to 94416. Winter wheat from Yugoslavia.
 94414. No. 95.
 94415. No. 96.
 94416. No. 97.
 94417 to 94544. From Valki. A series of winter-resistant winter wheats grown and selected for winter resistance three years at the Valki Experiment Station.

F.P.I. No.	Dickson's No.	Experiment station No. or name	Source
94417	98	1/e 34.....	Kologotska, northern Russia.
94418	99	1 A 34.....	Do.
94419	100	1 r/3 mg.....	Orloff.
94420	101	2 mg.....	Do.
94421	102	3 mg.....	Voronezh.
94422	103	4 mg.....	Do.
94423	104	5 mg.....	Do.
94424	105	5 r/e 34.....	Do.
94425	106	6 r/e 34.....	Do.
94426	107	7 r/e mg.....	Samara.
94427	108	7 r/e 34.....	Minsk, Siberia.
94428	109	8 r/e mg.....	Besenchuk.
94429	110	8 r/e 34.....	Minsk, Siberia.
94430	111	9 r/e 34.....	Do.
94431	112	9 r/e mg.....	Do.
94432	113	10 r/e mg.....	Do.
94433	114	11 r/e 34.....	Besenchuk.
94434	115	12 r/e 34.....	Do.
94435	116	14 r/e 34.....	Voronezh.
94436	117	15 r/e 34.....	Do.
94437	118	19 r/e 34.....	Samara.
94438	119	20 r/e 34.....	Do.
94439	120	21 r/e 34.....	Do.
94440	121	22 r/e mg.....	Kiev.
94441	122	23 r/e mg.....	Do.
94442	123	23-a r/e mg.....	Do.
94443	124	25 r/e mg.....	Patoloa.
94444	125	26 r/e mg.....	Kharkov.
94445	126	27 r/e mg.....	Do.
94446	127	27 r/e 34.....	Bushkeria, Siberia.
94447	128	28 r/e mg.....	Kharkov.
94448	129	29 r/e mg.....	Dnepropetrovsk.
94449	130	29 r/e 34.....	Chernoshaska.
94450	131A	30 r/e 34.....	Do.
94451	131B	30 r/e mg.....	Ukraine selection.
94452	132	31 r/e mg.....	Dnepropetrovsk.
94453	133	31 r/e 34.....	Chernosodon.
94454	134	32 r/e 34.....	Valonsky.
94455	135	33 r/e 34.....	Podolsky.
94456	136	33 r/e mg.....	Zakokanesky, Ukraine.
94457	137	34 r/e 34.....	Podolsky.
94458	138	34 r/e mg.....	Ukraine.
94459	139	35 r/e mg.....	Do.
94460	140	35 r/e 34.....	Poltora.

94301 to 94762—Continued.

F.P.I. No.	Dickson's No.	Experiment station No. or name	Source
94461	141	37 r/e mg.....	Ukraine.
94462	142	37 r/e 34.....	Do.
94463	143	38 r/e mg.....	Dnepropetrovsk.
94464	144	39 r/e 34.....	Ukraine.
94465	145	40 r/e mg.....	Crimea.
94466	146	41 r/e mg.....	Do.
94467	147	42 r/e mg.....	Kiev.
94468	148	43 r/e mg.....	Crimea.
94469	149	43 r/e 34.....	Kiev.
94470	150	44 r/e mg.....	Ukraine.
94471	151	45 r/e mg.....	Krasnodar.
94472	152	45 r/e 34.....	Kiev.
94473	153	46 r/e mg.....	Odessa.
94474	154	47 r/e 34.....	Kiev.
94475	155	47 r/e mg.....	Krasnodar.
94476	156	48 r/e mg.....	Tiflis, Georgia.
94477	157	48a r/e 34.....	Kiev.
94478	158	49 r/e mg.....	Tiflis, Georgia.
94479	159	50 r/e mg.....	Ural station.
94480	160	52 r/e mg.....	Chelabinsk, Siberia.
94481	161	53 r/e mg.....	Do.
94482	162	55 r/e mg.....	Omsk, Siberia.
94483	163	56 r/e mg.....	Altai, Siberia.
94484	164	57 r/e mg.....	Charvoorsk.
94485	165	58 r/e mg.....	Cheva, Turkistan.
94486	166	59 r/e mg.....	Dnepropetrovsk.
94487	167	60 r/e mg.....	Cheva, Turkistan.
94488	168	61 r/e mg.....	Do.
94489	169	62 r/e mg.....	Do.
94490	170	65 r/e mg.....	Uzbekistan.
94491	171	66 r/e mg.....	Do.
94492	172	74 r/e mg.....	Pottava.
94493	173	75 r/e mg.....	Do.
94494	174	76 r/e mg.....	Do.
94495	175	78 r/e mg.....	Do.
94496	176	79 r/e 34.....	Do.
94497	177	80 r/e 34.....	Do.
94498	178	81 r/e 34.....	Do.
94499	179	106 r/e 34.....	Kharkov.
94500	180	107 r/e 34.....	Kharkov station.
94501	181	127 r/e 34.....	Do.
94502	182	128 r/e 34.....	Do.
94503	183	130 r/e 34.....	Do.
94504	184	131 r/e 34.....	Do.
94505	185	132 r/e 34.....	Do.
94506	186	133 r/e 34.....	Ukraine.
94507	187	136 r/e 34.....	Kharkov station.
94508	188	138 r/e 34.....	Ukraine.
94509	189	140 r/e 34.....	Dnepropetrovsk.
94510	190	141 r/e 34.....	Ukraine.
94511	191	142 r/e 34.....	Do.
94512	192	159 r/e 34.....	Daetskjsim Don.
94513	193	161 r/e 34.....	Crimea.
94514	194	163 r/e 34.....	Do.
94515	195	164 r/e 34.....	Do.
94516	196	165 r/e 34.....	Do.
94517	197	166 r/e 34.....	Krasnodar.
94518	198	167 r/e 34.....	Azerbaijan.
94519	199	168 r/e 34.....	Caucasia.
94520	200	169 r/e 34.....	Karabah.
94521	201	170 r/e 34.....	Tiflis.
94522	202	171 r/e 34.....	Do.
94523	203	172 r/e 34.....	Ural station.
94524	204	173 r/e 34.....	Tubinsk, Siberia.
94525	205	174 r/e 34.....	Siberian selection.
94526	206	176 r/e 34.....	Altai, Siberia.
94527	207	177 r/e 34.....	Vladivostok.
94528	208	178 r/e 34.....	Cheva, Turkistan.
94529	209	179 r/e 34.....	Do.
94530	210	181 r/e 34.....	Do.
94531	211	183 r/e 34.....	Do.
94532	212	187 r/e 34.....	Do.
94533	213	188 r/e 34.....	Do.
94534	214	190 r/e 34.....	Bacura, Turkistan.
94535	215	192 r/e 34.....	Turkistan.
94536	216	193 r/e 34.....	Do.

94301 to 94762—Continued.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94537	217	194 r/e 34.....	Uzbekistan.
94538	218	195 r/e 34.....	Turkmenistan.
94539	219	197 r/e 34.....	Uzbekistan.
94540	220	199 r/e 34.....	Persia.
94541	221	201 r/e 34.....	Asia Minor.
94542	222	207 r/e 34.....	Czechoslovakia.
94543	223	256 r/e 34.....	Armenia.
94544	224	294 r/e 34.....	Noro Urinsh, Siberia.
94545	228	Col. No. 600.....	Kharkov, 1930; from Palestine.
94546	341	Res. smut rust, Ukrainian Selection.	Otrada, Kubanska.
94547	362	21161.....	Asia Minor.
94548	364	20722. Marquis. Wheat-scab resistant.	Portugal.
94549	365	21820. Sp. wheat. Wheat-scab resistant.	Do.
94550	367	21811. Sp. wheat. Wheat-scab resistant.	Do.
94551	368	1318. Soft Sp. wheat. Wheat-scab resistant.	Italy.
94552	369	1319-19926. Sp. wheat. Wheat-scab resistant.	Do.
94553	370	16167. Soft Sp. wheat. Wheat-scab resistant.	Algeria.
94554	374	7944. Sp. wheat. Wheat-scab resistant.	Mongolia.
94555	375	8036. Sp. wheat. Wheat-scab resistant.	Do.
94556	376	8104. Sp. wheat. Wheat-scab resistant.	Amur.
94557	378	11365. Wheat-scab resistant.	Do.
94558	379	11370. Wheat-scab resistant.	Do.
94559	380	11388. Wheat-scab resistant.	Do.
94560	381	15820. Sel.	Germany.
94561	382	16167. Wheat-scab resistant.	Algeria.
94562	383	do.	Do.
94563	395	17329-1929	Palestine.
94564	396	17329-1922	Do.
94565	397	17329. Wheat-scab resistant.	Do.
94566	398	17313.....	Do.
94567	399		Do.
94568	400	7380	Do.
94569	401	17413.	Syria.
94570	403	17723.	Greece.
94571	404	17725.	Do.
94572	410	22004.	Leda Col. A47.
94573	411	22223.	Samara.
94574	412	22233.	Caisium collection.
94575	413	22390.	Albidum 0604.
94576	416	19326.	Italy.
94577	421	19565.	Ethiopia.
94578	424	20248.	Egypt.
94579	425	20249.	Do.
94580	428	20651.	Spain.
94581	430	20722.	Portugal.
94582	431	21000.	Asia Minor.
94583	432	22006.	Khludorka.
94584	433	21013.	Asia Minor.
94585	439	21820.	Portugal.
94586	440	21821.	Do.
94587	443	21826.	Do.
94588	444	21938.	Asia Minor.
94589	447	24982.	
94590	448	25034.....	Uzbekistan.

94301 to 94762—Continued.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94591	450	25039.....	Caucasus.
94592	451	25059.....	
94593	573	Wheat N/18.....	Saratov.
94594	543	Square wheat.	
94595	544	Hybrid wheat.	Akermann collection.
94598	545	Landslide No. 49.	Do.
94597	546	No. 60.....	Do.
94598	547	Höster.....	Do.
94599	548	No. 61, winter wheat.	Do.
94600	549	No. 68, Landslide.	Do.
94601	550	No. 71, Landslide.	Do.

94602 to 94611. TRITICUM AESTIVUM X SECALE CEREALE. Wheat-rye hybrid

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94602	38	Wheat and rye hybrid....	Saratov.
94603	571	539/1549.....	Do.
94604	572	374/1160; winter hardy.....	Do.
94605	574	71/2956; winter hardy.....	Do.
94606	575	182/783.....	Do.
94607	576	49/2570; winter hardy.....	Do.
94608	577	102/740.....	Do.
94609	578	46/131.....	Do.
94610	579	223/845.....	Do.
94611	580	Early maturing.....	Do.

94612. TRITICUM CIVICERSTORMUM Vavilov.

No. 457. A rust-resistant selection from the Gonzah collection No. 30.

94613 to 94683. TRITICUM DICOCCUM Schrank. Emmer.

94613. No. 229. From the Kharkov Experiment Station, originally from Arabia.

94614. No. 230. A selection made at the Kharkov Experiment Station. Nos. 94615 to 94683 are from the Vavilov collection at the Valki Experiment Station.

F. P. I. I. No.	Dickson's No.	Experiment station No. or name	Source
94615	231	161.....	Daghestan.
94616	232	1.....	Ural region.
94617	233	5.....	Daghestan.
94618	234	6.....	Gretzia.
94619	235	7.....	Do.
94620	236	8.....	Do.
94621	238	11.....	Armenia.
94622	239	12.....	Persia.
94623	240	13.....	Do.
94624	241	14.....	Do.
94625	242	15.....	Do.
94626	243	16.....	Turkey.
94627	244	17.....	Asia Minor.
94628	245	20.....	India.
94629	246	23.....	Ethiopia.
94630	247	24.....	Do.
94631	248	25.....	Do.
94632	249	27.....	Do.
94633	250	30.....	Morocco.
94634	251	32.....	Do.
94635	252	33.....	Persia.
94636	253	35.....	Do.

94301 to 94762—Continued.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94637	254	38	Persia.
94638	255	45	Do.
94639	256	46	Do.
94640	257	48	Do.
94641	258	51	Germany.
94642	259	52	Do.
94643	260	56	Spain.
94644	261	58	Do.
94645	262	59	Do.
94646	263	60	Do.
94647	264	70	Do.
94648	265	71	Italy.
94649	266	74	Czechoslovakia.
94650	267	75	Do.
94651	268	76	Slavonia.
94652	269	77	Serbia.
94653	270	78	Do.
94654	271	81	Bulgaria.
94655	272	82	Do.
94656	273	83	Belgrade, Yugo-
			slavia.
94657	274	84	Do.
94658	275	86	Spain.
94659	276	90	Bulgaria.
94660	277	91	Volga region.
94661	278	92	Armenia.
94662	279	93	Germany.
94663	280	94	Do.
94664	282	95. Early spelt	Arabia.
94665	286	96	Ethiopia.
94666	292	159	Daghestan.
94667	293	160	Do.
94668	294	162	Do.
94669	295	163	Do.
94670	296	385	Persia.
94671	297	723	Afghanistan.
94672		126HOB	
94673	298		Armenia.
94674	301	W1056	Georgia.
94675	302	W1071	Do.
94676	342	931	Otrada, Kuban-
			ska.
94677	343	932	Do.
94678	360	17696	Persia.
94679	361	19551	Ethiopia.
94680	372	1593	Germany.
94681	373	6463	
94682	402	17596. Spr. wheat; wheat-scab res-	Greece.
		istant.	
94683	456		Gonzah, Arme-
			nia.

94684 to 94734. TRITICUM DURUM Desf.
Durum wheat.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94684	11BPR,	Winter wheat.	Gonzah.
	bl.hds.		
94685	11BPP,	do	Do.
	bl.hds.		
94686	14BPW.	Reasante; win-	Original; Flem-
		ter wheat.	ish collection.
94687	16	do	Do.
94688	18	Winter wheat.	Ethiopian col-
			lection.
94689	37	do	Erivan, Arme-
			nia.
94690	306	Smut resistant	Tifis, Georgia.
94691	346	21164; wheat-	Amur, 1929;
		scab resist-	Asia Minor
		ant.	collection.
94692	359	17129	Shatilof, from
			Damascus.
94693	399	19565	Shatilof, from
			Ethiopia.

94301 to 94762—Continued.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94694	377	8626	Originally from
			Egypt.
94695	384	16240	Originally from
			Algeria.
94696	385	16356	Originally from
			Saratov.
94697	386	16535	Tunisia collec-
			tion.
94698	387	16599	Do.
94699	388	17120	Syrian collec-
			tion.
94700	389	17202	Do.
94701	390	17234	Palestine collec-
			tion.
94702	391	17261	Do.
94703	392	17271	Do.
94704	393	17276	Do.
94705	394	17327	Do.
94706	405	1774	Kipr collection.
94707	406	17793	Do.
94708	407	17842	Do.
94709	408	17855	Do.
94710	409	17868	Do.
94711	414	22397; Hordei-	
		forme 010.	
94712	415	19284	Ethiopian col-
			lection.
94713	417	19331	Italian collec-
			tion.
94714	418	19331	Odessa, 1929;
			Italian collec-
			tion.
94715	419	19332	Italian collec-
			tion.
94716	420	19340	Do.
94717	422	20119	Sardinian col-
			lection.
94718	423	20149	Do.
94719	426	20610	Spain.
94720	427	20612	Do.
94721	429	20721	Portuguese col-
			lection.
94722	434	21104; Odessa	Asia Minor.
		1929.	
94723	435	21104	Do.
94724	436	21807	Italian collec-
			tion.
94725	437	21108	Asia Minor.
94726	438	21808	Italian collec-
			tion.
94727	441	21824	Portuguese col-
			lection.
94728	442	21825	Do.
94729	445	21965; Milan-	Amur region.
		opus 069.	
94730	446	21966	Do.
94731	449	25-38	Caucasian col-
			lection.
94732	452	Selection from	Sardinia.
		Gonzah.	
94733	454	do	Ethiopia.
94734	455	do	Do.

94735 to 94747. TRITICUM MONOCOCCUM
L.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94735	47	Multiple head, winter wheat	Erivan, Armenia.
94736	281	94a	Spain.
94737	283	95	Kharkov selection.
94738	284	95a	Do.
94739	285	96	Do.
94740	287	106	Spain.
94741	288	130	Kharkov selection.
94742	289	131	Do.

94301 to 94762—Continued.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94743	290	136.....	Volga region.
94744	291	137.....	Do.
94745	299	W-2077.....	Dekaprilovitch collection, Tiflis, Georgia.
94746	300	W-2591.....	Do.
94747	301	W-1065.....	Do.

94748 to 94757. TRITICUM PERSICUM (Boiss.) Aitch. and Hemsl.
Persian wheat.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94748	349	W-2348.....	Georgia.
94749	350	W-2247.....	Do.
94750	351	W-2357.....	Do.
94751	352	W-2357a.....	Do.
94752	353	W-2259.....	Do.
94753	354	W-2330.....	Do.
94754	355	W-2265.....	Do.
94755	356	W-2328.....	Do.
94756	363	Shatilof.
94757	310	Leninkan, Armenia.

94758 and 94759. TRITICUM PERSICUM X DURUM.
Persian-durum wheat hybrid.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94758	226	Abyssinia soft wheat.	Kharkov Experiment Station, 1930.
94759	227do.....	Do.

94760 and 94761. TRITICUM TIMOPHEEVI Zhuk.

F. P. I. No.	Dickson's No.	Experiment station No. or name	Source
94760	303	W-2601.....	Dekaprilovitch collection, Tiflis, Georgia.
94761	357	W-2592.....	Do.

94762. TRITICUM TURGIDUM L.
Poulard wheat.

No. 371. Spring wheat resistant to wheat scab, Shatilof Experiment Station No. 16156. Originally from Algeria.

94763 to 94786.

From Argentina. Seeds presented by the Director, Jardin Botánico, Buenos Aires. Received October 15, 1931.

94763. ACACIA SUNDEA (Roxb.) DC. Mimosaceae.

A tropical tree with dark-brown bark, erect twiggy branches, and short stout recurved spines on the bark. The bipin-

94763 to 94786—Continued.

nate leaves are 4 or 5 inches long, and the yellow flowers are in short-stalked axillary spikes. The wood is very hard and heavy.

94764. ACACIA VISCO Lorentz. Mimosaceae.

An Argentine acacia, sparsely armed with recurved spines. The smooth sessile flowers, with numerous long stamens, form scythe-shaped legumes over an inch in width. The leaves are pinnately compound. The striped walnut-colored wood is hard and durable and valued highly for its resistance to moisture; it is used for all kinds of cabinetwork.

For previous introduction see 88200.

94765. ARECASTRUM ROMANZOFFIANUM (Cham.) Becc. (*Cocos romanzoffiana* Cham.). Phoenicaceae. Palm.

A palm, native to Brazil, with an unarmed trunk about 20 feet high and 1 foot in diameter, bearing a crown of plumelike leaves 12 to 15 feet long. The fruit is a pale-orange drupe about the size of a large acorn, inclosing a bony seed which has three eyes near the base.

For previous introduction see 91773.

94766. BAUHINIA CANDICANS Benth. Caesalpiniaceae.

A thorny shrub, native to Uruguay and Argentina, with leaves heart-shaped at the base and cleft nearly to the middle at the apex. The creamy white flowers are borne in whitish tomentose racemes, and the petals are nearly 3 inches long.

94767. BIGNONIA TUBIFLORA Hort. Bignoniaceae.

A name for which a place of publication and a description have not been found.

94768. BLEPHAROCALYX TWEEDIEI (Hook. and Arn.) Berg. Myrtaceae.

A subtropical tree, native to Uruguay, with lanceolate acute leaves and axillary flowers in pairs.

94769. ANNESLIA TWEEDII (Benth.) Lindl. (*Calliandra tweedii* Benth.). Mimosaceae.

A low tropical tree with bipinnate leaves made up of three to four pairs of very small hairy linear-oblong leaflets, and globose flower heads with rather showy purplish stamens. Native to British Guiana.

94770. CEDRELA ODORATA L. Meliaceae. Cigarbox-cedar.

A tree, sometimes 100 feet tall, with handsome bright-green compound leaves 10 to 20 inches long. Native to the West Indies. This is the tree which produces the cigarbox wood of Cuba and should be tried in Florida as a possible timber tree.

For previous introduction see 59302.

94771. CHOMELIA TUBIFLORA Hort. Rubiaceae.

A name for which a place of publication and a description have not been found.

94772. CHUSQUEA CUMINGII Nees. Poaceae. Bamboo.

A tall bamboo, native to the vicinity of Valparaiso, Chile. The sessile lanceolate leaves, over an inch long, have ser-

94763 to 94786—Continued.

ulate scabrous margins and are rigid and green. The panicles are about an inch long.

94773. *DAUBENTONIA TRIPETII* Poit. Fabaceae.

A shrub or small tree, native to Argentina, with pinnately compound leaves which are dull green above and paler beneath. The rather large orange-red flowers are borne in drooping racemes.

94774. *HOLOCALYX BALANSÆ* Michell. Caesalpiniaceae.

A shrub, native to Paraguay, about 15 feet high, with leathery pinnate leaves about 6 inches long, consisting of 20 to 40 pairs of oblong leaflets. The inconspicuous flowers are in short axillary racemes, and the short pod is thick and fleshy.

94775. *ILEX PARAGUARIENSIS* St. Hil. Aquifoliaceae. *Yerba maté.*

A tender evergreen Paraguayan holly, the leaves of which are dried and used to make the beverage called maté, or Paraguay tea.

94776. *LONCHOCARPUS NEUROSCAPHA* Benth. Fabaceae. *Lancepod.*

An evergreen tree, native to Uruguay, with alternate pinnate leaves and racemes of purplish pealike flowers.

For previous introduction see 66810.

94777 to 94779. *MIMOSA* spp. Mimosaceae.

94777. *MIMOSA PIGRA* L. (*M. asperata* L.).

An erect, thorny shrub 3 to 6 feet high with bipinnate leaves made up of linear leaflets less than one-fourth of an inch long and heads of pink flowers. It is native to Mexico and is also found in tropical America and Africa.

94778. *MIMOSA CARINATA* Griseb.

A subtropical spiny tree with bipinnate leaves consisting of 1 or 2 pairs of pinnae and 12 to 24 pairs of minute pinnules. The purple and green plaid flowers are in small heads.

94779. *MIMOSA SPEGAZZINII* Pirootta.

A much-branched, climbing shrub with recurved spines, sensitive bipinnate leaves 2 to 3 inches long, and globular heads, about an inch in diameter, of rose-purple flowers. It is native to Argentina.

94780. *MYROXYLON SERRATUM* Krug and Urban. Flacourtiaceae.

A small tree with bright-green papery obtuse leaves about 5 inches long and inconspicuous flowers in small axillary umbels. Native to Montserrat, British West Indies.

94781. *PIPTADENIA EXCELSA* (Griseb.) Lillie. Mimosaceae.

A tree, sometimes nearly 100 feet high, with 15 to 20 pairs of leaflets in each leaf and spikes of flowers 2 to 3 inches long. The pods are linear. The rosy wood, which resembles that of *Piptadenia macrocarpa*, is tough and straight grained and is used for carpenter work.

For previous introduction see 88243.

94782. *LEUCAENA GLAUCA* (L.) Benth. Mimosaceae.

A shrub or tree up to 30 feet high with a smooth trunk, bipinnate leaves made up of four to eight pinnae bearing 10 to

94763 to 94786—Continued.

20 pairs of narrowly lanceolate leaflets half an inch long, and globular heads of small white flowers. The young branches are used as forage.

For previous introduction see 88156.

94783. *SAPINDUS DIVARICATUS* Willd. Sapindaceae. *Soapberry.*

A tropical American tree 12 to 30 feet high, with smooth gray bark and abruptly pinnate leaves composed of three to six pairs of ovate-lanceolate leaflets. The small white flowers are in terminal panicles about 1 foot long.

94784. *SCHINUS TEREBINTHIFOLIUS* AROËRA (Vell.) L. Marchand. Anacardiaceae.

A shrub 3 to 10 feet high or sometimes a small tree 20 feet high. The variable membranous leaves are unequally pinnate and are composed of two to four pairs of oblong to obovate-oblong leaflets 2 to 3 inches long. The small white flowers are followed by scarlet berries in panicles 2 to 4 inches in length.

94785. *VITEX* sp. Verbenaceae.

Taruma.

94786. *ZEA MAYS* L. Poaceae. *Corn.*

94787 to 94922. *HORDEUM* spp. Poaceae. *Barley.*

From the Union of Soviet Socialist Republics. Seeds obtained by J. G. Dickson, professor of plant pathology, College of Agriculture, Madison, Wis., and agent in cereal investigations, United States Department of Agriculture. Received in November and December, 1930. Numbered in October, 1931.

94787. *HORDEUM DEFICIENS* Steud. *Deficient barley.*

No. 510. Spring barley from Kharkov.

94788. *HORDEUM DEFICIENS NUDEFICIENS* (Koern.) Harlan. *Deficient barley.*

No. 339. From Otrada, Kubanska.

94789 to 94791. *HORDEUM DISTICHON NIGRICANS* Seringe. *Two-rowed barley.*

94789. No. 225. From Kharkov. A smooth-awned, rust-resistant variety.

94790. No. 308. From the steppes of Georgia. A black winter barley.

94791. No. 321. From Otrada, Kubanska. A smooth-awned, rust-resistant spring barley.

94792 to 94794. *HORDEUM DISTICHON NUDUM* L. *Two-rowed barley.*

94792. No. 50. From the steppes of Georgia. A black winter barley.

94793. No. 322. From Otrada, Kubanska. A medium rust-resistant form.

94794. No. 522. From Kharkov. A spring barley.

94795 to 94847. *HORDEUM DISTICHON PALMELLA* Harlan. *Two-rowed barley.*

94795. No. 29. From the experiment fields at Derbent.

94796. No. 56. From the steppes of Georgia at 4,000 feet altitude. A winter variety with stiff straw.

94797. No. 64. From southeast of Eriyan at 4,000 feet altitude, in a very dry region.

94787 to 94922—Continued.

94798. No. 311. From Odessa. A high-yielding spring barley of good quality.
94799. No. 319. From Otrada, Kubanska. A rust-resistant barley.
94800. No. 320. A rust-resistant spring barley.
- Nos. 94801 to 94804 were collected at Otrada, Kubanska.
94801. No. 325. Rust resistant.
94802. No. 332.
94803. No. 335. A smooth-awned spring barley which is medium rust resistant.
94804. No. 336. A rust-resistant form.
94805. No. 347. From Kosbeck. A 2-rowed barley.
94806. No. 348. From the Kosbeck Valley, trans-Caucasian Mountains, at 3,000 feet altitude.
- Nos. 94807 to 94819 were collected by Doctor Müller, of Biologische Reisanstalt für Landand Forstwirtschaft, in northeastern Turkey in 1928 and grown at Baku in 1930.
94807. No. 461. 94814. No. 494.
94808. No. 478. 94815. No. 495.
94809. No. 482. 94816. No. 498.
94810. No. 484. 94817. No. 505.
94811. No. 489. 94818. No. 506.
94812. No. 490. 94819. No. 507.
94813. No. 491.
94820. No. 508. From Kharkov.
94821. No. 511. From Odessa.
- Nos. 94822 to 94838 were collected at Kharkov.
94822. No. 512. 94831. No. 521.
94823. No. 513. 94832. No. 525.
94824. No. 514. 94833. No. 526.
94825. No. 515. 94834. No. 527.
94826. No. 516. 94835. No. 528.
94827. No. 517. 94836. No. 529.
94828. No. 518. 94837. No. 530.
94829. No. 519. 94838. No. 531.
94830. No. 520.
94839. No. 533. Collected near Bristol, England. A small-headed type.
94840. No. 534. Collected near Bristol, England. The native type.
94841. No. 535. Collected near Exeter, England. A large-headed type.
94842. No. 536. Collected near Bristol, England. A small-headed type.
94843. No. 537. Collected near Bristol, England. An erect type.
94844. No. 538. Variety *Chevalier*. From Staunton, England.
94845. No. 539. From Exeter, England. A form with heavy heads, free from disease.
94846. No. 540. From Cambridge, England. A large-headed type.

94787 to 94922—Continued.

94847. No. 541. Collected near Bristol, England.
- Nos. 94848 to 94852 were collected at Otrada, Kubanska.
94848. *HORDEUM INTERMEDIUM CORNUTUM* (Schräd.) Harlan.
- No. 309.
94849. *HORDEUM INTERMEDIUM MORTONI* Koern.
- No. 331. Spring barley.
94850. *HORDEUM SPONTANEUM* C. Koch.
- No. 317.
94851. *HORDEUM VULGARE COELESTE* L.
Six-rowed barley.
- No. 312-C.
94852. *HORDEUM VULGARE DUPLINIGRUM* Koern.
- No. 318. A black barley with smooth awns.
- 94853 to 94856. *HORDEUM VULGARE NIGRUM* (Willd.) Beaven. Six-rowed barley.
94853. No. 1. Black barley collected on the dry plains east of Baku.
94854. No. 24. Collected at Gonzali on a native's farm.
94855. No. 30. *Dargastan*. A black winter barley from the experiment station at Asafute.
94856. No. 57. Black winter barley from the steppes of Georgia.
- 94857 to 94921. *HORDEUM VULGARE PALLIDUM* Seringe. Six-rowed barley.
94857. No. 1. White barley from the dry plains east of Baku.
- Nos. 94864 to 94881 were collected at Otrada, Kubanska.
94858. No. 26. A medium-late, rust-resistant winter barley.
94859. No. 27. A rust-resistant winter barley.
94860. No. 28. A rust-resistant winter barley.
94861. No. 30. *Dargastan*. A white winter barley.
94862. No. 32. White winter barley from the steppes of Georgia.
94863. No. 307. From the steppes southeast of Tiflis.
- Nos. 94864 to 94881 were collected at Otrada, Kubanska.
94864. No. 312-a. A high-yielding, winter-resistant barley.
94865. No. 312-b. A high-yielding, winter-resistant barley.
94866. No. 313. A smooth-awned barley, medium rust resistant and medium late.
94867. No. 314. Rust resistant.
94868. No. 315. Japanese type, medium rust resistant.
94869. No. 316. A rust-resistant spring barley.
94870. No. 323. A rust-resistant type.
94871. No. 324. A rust-resistant type.

94787 to 94922—Continued.

94872. No. 326. A rust-resistant spring barley with very stiff straw.

94873. No. 327. Japanese type, rust resistant.

94874. No. 328. *Irkutsk*. A rust-resistant type.

94875. No. 329. A rust-resistant spring barley.

94876. No. 330. A rust-resistant spring barley.

94877. No. 333. Spring barley.

94878. No. 334. A rust-resistant spring barley.

94879. No. 337. A medium rust-resistant spring barley.

94880. No. 338. Spring barley.

94881. No. 340. Spring barley.

Nos. 94882 to 94917 are a collection of spring barleys made by Doctor Müller, of Biologische Reisanstalt für Landamt, Forstwirtschaft, in northeastern Turkey in 1928 and grown in Baku in 1930.

94882. No. 459.

94900. No. 479.

94883. No. 460.

94901. No. 480.

94884. No. 462.

94902. No. 481.

94885. No. 463.

94903. No. 483.

94886. No. 464.

94904. No. 485.

94887. No. 465.

94905. No. 486.

94888. No. 466.

94906. No. 487.

94889. No. 467.

94907. No. 488.

94890. No. 468.

94908. No. 492.

94891. No. 469.

94909. No. 493.

94892. No. 470.

94910. No. 496.

94893. No. 471.

94911. No. 497.

94894. No. 472.

94912. No. 499.

94895. No. 473.

94913. No. 500.

94896. No. 474.

94914. No. 501.

94897. No. 475.

94915. No. 502.

94898. No. 476.

94916. No. 503.

94899. No. 477.

94917. No. 504.

Nos. 94918 to 94920 were collected at Kharkov.

94918. No. 509.

94919. No. 523.

94920. No. 524.

94921. No. 532-b. From the Valki Experiment Station.

94922. HORDEUM DISTICHON PALMELLA Harlan. Two-rowed barley.

No. 532-a. From the Valki Experiment Station.

94923 to 94936.

From the Union of Soviet Socialist Republics. Seeds presented by M. P. Petrov, director of the Repetek Sand-Desert Station (Turkmenistan). Received October 16, 1931.

94923. AMMODENDRON CONOLLYI Bunge. Fabaceae.

An evergreen silky-leaved Siberian shrub used as a sand binder.

For previous introduction see 92962.

94923 to 94936—Continued.

94924. ARISTIDA PENNATA KARELINI Trin. and Rupr. Poaceae. Grass.

A perennial grass of possible value as a forage crop.

For previous introduction see 92966.

94925 and 94926. ASTRAGALUS AMMODENDRON Bunge. Fabaceae.

A large shrub native to sandy places near the Caspian Sea. The pinnate leaves have three leaflets, and the small purplish flowers are in short racemes.

94925. Variety *confirmans*.

94926. Variety *paucijugus*.

94927 to 94932. CALLIGONUM spp. Polygonaceae.

94927. CALLIGONUM ARBORESCENS Litv.

A drought-resistant shrub 10 feet high, said to be a good sand binder. It is found in the region of the Caspian Sea.

For previous introduction see 73185.

94928. CALLIGONUM CAPUT-MEDUSAE Schrenk.

A leafless shrub with dichotomous branches, small reddish flowers in the axils of the sheaths, and nutlike fruits covered with filamentous reddish spines. Possibly of value as an ornamental in desert regions and useful as a sand binder. It is native to western Asia.

For previous introduction see 92971.

94929. CALLIGONUM CAPUT-MEDUSAE RUBICUNDUM Herder.

Similar to 94928, but much redder in all its parts.

94930. CALLIGONUM COMOSUM L'Her.

A densely branched shrub 10 to 15 feet high, with minute subulate leaves and small ovate densely spiny nutlike fruits. Native to the eastern Mediterranean region.

For previous introduction see 92972.

94931. CALLIGONUM ERIPODUM Bunge.

A slender-branched shrub with whitish branchlets and linear-subulate minute leaves which are early deciduous. Native to Turkistan.

For previous introduction see 92973.

94932. CALLIGONUM SETOSUM Litv.

A leafless shrub much like *C. caput-medusae*, but the filaments on the fruits are brownish and are longer and more slender. It is native to the Caspian region.

For previous introduction see 92974.

94933. CAREX PHYSOIDES Bieb. Cyperaceae.

A perennial sedge usually about 6 inches high, rarely more, native to the sandy deserts of Turkistan, with filiform leaves and panicles of brownish globose membranous perigynia, or sacs, half an inch long.

94934. EPHEDRA ALATA Decaisne. Gneta-ceae.

A tall freely branching shrub with rough green equisetumlike branches, small scalelike leaves, and inconspicuous

94923 to 94936—Continued.

ous flowers, native to Arabia and northern Africa. Of value as a possible source of ephedrine.

For previous introduction see 92980.

94935. EREMOSPARTON FLACCIDUM Litv. Fabaceae.

A bushy tree about 15 feet high, native to sandy places in the trans-Caspian region. The branchlets are thread-like and limp, and the small flowers are dark violet.

For previous introduction see 92981.

94936. SMIRNOWIA TURKESTANA Bunge. Fabaceae.

A much-branched shrub with long, almost filiform branches and leaves reduced to a single obovate leaflet. Native to the deserts of Turkistan.

For previous introduction see 92991.

94937 and 94938. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae.

Common wheat.

From Australia. Seeds presented by H. Wenholz, director of plant breeding, Department of Agriculture, Sydney, New South Wales. Received October 16, 1931.

94937. *Baringa*.

94938. *Yok*.

94939 to 95046. PISTACIA VERA L. Anacardiaceae. Pistache.

From the Union of Soviet Socialist Republics. Seeds presented by V. Gorbonova, Lenin Academy of Agricultural Sciences, Institute of Plant Industry, Leningrad. Received October 16, 1931.

An assortment of different forms of wild pistache from the Kushka region (Turkmenistan). The seeds are small, but the plants are very hardy, being able to withstand temperatures as low as 30° C.

94939. No. 201. **94961. No. 474.**

94940. No. 213. **94962. No. 480.**

94941. No. 215. **94963. No. 481.**

94942. No. 260. **94964. No. 495.**

94943. No. 283. **94965. No. 496.**

94944. No. 341. **94966. No. 499.**

94945. No. 342. **94967. No. 512.**

94946. No. 352. **94968. No. 515.**

94947. No. 363. **94969. No. 516.**

94948. No. 369. **94970. No. 531.**

94949. No. 370. **94971. No. 532.**

94950. No. 374. **94972. No. 537.**

94951. No. 382. **94973. No. 547.**

94952. No. 389. **94974. No. 548.**

94953. No. 401. **94975. No. 553.**

94954. No. 404. **94976. No. 562.**

94955. No. 410. **94977. No. 573.**

94956. No. 442. **94978. No. 585.**

94957. No. 451. **94979. No. 600.**

94958. No. 459. **94980. No. 605.**

94959. No. 463. **94981. No. 607.**

94960. No. 470. **94982. No. 608.**

94939 to 95046—Continued.

94983. No. 614. **95015. No. 1070.**

94984. No. 626. **95016. No. 1083.**

94985. No. 632. **95017. No. 1085.**

94986. No. 638. **95018. No. 1096.**

94987. No. 639. **95019. No. 1104.**

94988. No. 642. **95020. No. 1111.**

94989. No. 649. **95021. No. 1117.**

94990. No. 655. **95022. No. 1119.**

94991. No. 660. **95023. No. 1121.**

94992. No. 667. **95024. No. 1129.**

94993. No. 680. **95025. No. 1131.**

94994. No. 716. **95026. No. 1144.**

94995. No. 724. **95027. No. 1163.**

94996. No. 726. **95028. No. 1164.**

94997. No. 926. **95029. No. 1168.**

94998. No. 929. **95030. No. 1172.**

94999. No. 955. **95031. No. 1178.**

95000. No. 966. **95032. No. 1181.**

95001. No. 971. **95033. No. 1185.**

95002. No. 979. **95034. No. 1191.**

95003. No. 981. **95035. No. 1207.**

95004. No. 984. **95036. No. 1211.**

95005. No. 986. **95037. No. 1224.**

95006. No. 991. **95038. No. 1229.**

95007. No. 994. **95039. No. 1238.**

95008. No. 996. **95040. No. 1248.**

95009. No. 1000. **95041. No. 1252.**

95010. No. 1008. **95042. No. 1265.**

95011. No. 1029. **95043. No. 1274.**

95012. No. 1039. **95044. No. 1280.**

95013. No. 1055. **95045. No. 1290.**

95014. No. 1067. **95046. No. 1308.**

95047 and 95048.

From Cuba. Seeds presented by Mrs. F. S. Earle, Herradura. Received October 16, 1931.

95047. COCCOTHRINAX ARGENTEA (Roem. and Schult.) Sarg. Phoeniceae. **Silver palm.**

Guano blanco. A dwarf palm with fan-shaped leaves which are silvery gray beneath. Native to the West Indies.

For previous introduction see 81586.

95048. PAURONIS WRIGHTII (Griseb. and Wendl.) Britton. Phoeniceae. **Palm.**

Guano prieto. A tree often with several erect trunks 25 to 40 feet high, native to southern Florida and the West Indies. The half-orbicular, fan-shaped leaves, which spread in all directions, are yellow green above and blue green beneath, and the segments are linear lanceolate. The drooping spadix, 3 to 5 feet long, bears yellow-green flowers followed by lustrous black fruits one-third inch in diameter.

95049 to 95063. PRUNUS spp. Amygdalaceae.

From the Union of Soviet Socialist Republics. Seeds presented by V. P. Alekseev, plant introducer, Sukhum Subtropical

95049 to 95063—Continued.

Branch of the All-Union Institute of Plant Industry, Sukhum, Caucasus. Received October 17, 1931.

95049 to 95058. *PRUNUS CERASIFERA DIVARICATA* (Ledeb.) C. Schneid. Plum.

95049. No. 41200. From the city of Sukhum. A large tree over 30 feet high, which is a prolific cropper. The medium-sized fruits, $1\frac{1}{2}$ by $1\frac{1}{4}$ inches, are slightly oval. When mature the color is very dark violet, almost black, and the mild subacid yellow-red flesh is very pleasant.

95050. No. 41201. From Poti, Black Sea coast. A large spreading tree with small dark-red oval fruits. A very common form in this region.

95051. No. 41203. From Poti, Black Sea coast. A large, vigorous tree with small red oval fruits which are acid.

95052. No. 41202. From Poti, Black Sea coast. A large spreading tree with medium-sized oval fruits of violet color with an acid flavor.

95053. No. 41205. From the city of Sukhum. The fruits are small oblong oval, light yellow in color, with sweet flesh of very pleasant flavor.

95054. No. 41204. From Poti, Black Sea coast. A medium-sized tree; the fruits are oval, yellow with red cheek, medium sized; flesh yellow, subacid, mild, and of pleasant flavor.

Nos. 95055 to 95058 are variety *pon-tica*. This variety is distributed through the lowlands and middle mountainous parts of Adjaria, West Grusia, and Abkhasia (west Transcaucasia), both in the wild and cultivated state. The following descriptions are of the four best cultivated forms.

95055. No. 37804. Collected in the village of Agoma, Adjaria, in June, 1930. A large ovate red fruit with rough skin, densely dotted, with heavy bloom. The flesh is at first yellow, but becomes red when the fruit is fully ripe. It is very juicy, acid, and almost a freestone.

95056. No. 37806. Collected in Adjaria in July, 1930. Large violet fruit, slightly ovate, with the skin fairly thick with bloom and dense light dots. The flesh is red, subacid, and of very pleasant flavor.

95057. No. 37803. Collected at Agoma, Adjaria, in June, 1930. The large fruits are broadly cylindrical in form and red-violet in color. The skin is rough with heavy bloom nearly without dots. The flesh is red subacid and nearly a freestone.

95058. No. 37805. Collected at Agoma, Adjaria, in July, 1930. The large ovate yellow fruits are slightly unsymmetrical and slightly depressed on both sides. The skin is yellow and heavily bloomed. The flesh is light yellow, juicy, and subacid.

95059 to 95063. *PRUNUS HYRCANICA* Hort.

A collection of plums found by V. P. Jekimov in the irrigated orchards of Ordubat and Migri, cities on the Aras River, near the Persian frontier. They have no names, and the small-fruited varieties are propagated by seeds, also by grafting and budding.

95049 to 95063—Continued.

95059. No. 37802. *Migri*, apple shaped. Fruit medium sized, cylindrical, slightly broader at the base, slightly flattened at the sides, deep suture. Color red. Flesh greenish yellow, subacid, fairly juicy. Stone nearly cling. Ripens late in June.

95060. No. 37798. The large green fruit is flattened on both sides, from the broader side round-quad-rangular in form; both base and tip depressed; deep suture on the broad side. Skin smooth, glossy green with translucent greenish spots. Flesh light green, of pleasant subacid flavor, fairly juicy, stone cling. Ripens in the middle of July.

95061. No. 37800. Small heart-shaped fruits nearly globose in form, slightly flattened on the sides, and greenish red or greenish deep pink in color. The slightly acid flesh is greenish yellow tinged with pink, very juicy, and of pleasant flavor. The plum is a clingstone and ripens early in July.

95062. No. 37801. Rose (small).

95063. No. 37799. Large oval yellow fruit with smooth skin, which is glossy greenish yellow with translucent greenish spots; flesh greenish yellow, very juicy, of pleasant subacid flavor. A near clingstone which ripens the middle of July.

95064. CITRUS sp. Rutaceae.

From French Indo-China. Cutting presented by M. Poilane, Institut des Recherches Agronomiques de l'Indochine, Division de Botanique. Received October 21, 1931.

95065. PERESKIA GRANDIFOLIA Haw. Cactaceae. Bush pereskia.

From the Canal Zone. Seeds presented by J. E. Higgins, Director, Canal Zone Experiment Gardens, Summit. Received October 21, 1931.

A shrub or tree 6 to 15 feet high, with a short spiny trunk, fleshy branches, oblong leaves 3 to 6 inches long, and terminal clusters of rose-colored to white flowers 1 to 2 inches across. It is native to Brazil.

For previous introduction see 93495.

95066. SORGHUM VULGARE Pers. Poaceae. Italian broomcorn.

From Australia. Seeds presented by R. G. May, Bathurst Experiment Farm, Bathurst, New South Wales. Received October 26, 1931.

A variety with white seeds.

95067. RHUS VIMINALIS Ait. Anacardiaceae. Sumac.

From the Union of South Africa. Seeds presented by F. Walton Jameson, city engineer, Kimberley. Received October 27, 1931.

Karoo boom. A hardy evergreen tree up to 30 feet high with a spread of the same distance, which grows in semiarid regions at over 4,000 feet altitude. It grows rapidly from cuttings or seeds if the ground is kept moist until germination starts. The flexible wood is considered excellent for yokes, keys, tobacco pipes, and furniture;

95067—Continued.

and fence posts made of it have been found in good condition 25 years after they have been set in the ground. Sheep and goats browse on the foliage, and the sweetish fruits are eaten by children and poultry. The *karroo boom* makes a beautiful street and shade tree, being hardier and more ornamental than *Schinus molle*, which it resembles in habit.

For previous introduction see 46810.

95068 to 95070. *PISTACIA* spp. *Anacardiaceae*. **Pistache.**

From Syria, Asia Minor. Seeds collected by V. M. Maroukian, Bureau of Plant Industry. Received October 27, 1931.

95068. *PISTACIA TEREBINTHUS* PALESTINA (Boiss.) Engl.

No. 3. Collected September 12, 1931, on hills around Betias, Syria. A small tree or bush from 4 to 6 feet high. It grows wild in limestone soil between 1,500 and 2,000 feet altitude. The fruit is white at first, gradually becoming dark red. The growers here use it as a stock on which to graft the better varieties of cultivated pistache.

For previous introduction see 29476.

95069. *PISTACIA VERA* L.

No. 1. Collected September 15, 1931, from gardens near Aleppo, Syria. A tree between 25 and 30 feet high, found in dry sandy loam. In this region no irrigating or watering is done; there is little rain and plenty of sunshine, and the climate is warm.

95070. *PISTACIA VERA* L.

No. 2. Collected September 15, 1931, from gardens near Aleppo, Syria. A tree between 25 and 30 feet high, found on sandy limestone soil, well drained and with a southern exposure. No irrigating is done, but a dry soil mulch is maintained.

95071 and 95072.

From the Union of South Africa. Bulbs presented by Mrs. J. Norman Henry, Gladwyne, Pa. Received October 28, 1931.

95071. *IXIA SCARIOSA* Thunb. *Iridaceae*.

A bulbous plant, native to southern Africa, with two to three short sword-shaped basal leaves and flower stems 1 foot high, bearing lax spikes of three to six funnel-shaped reddish or lilac flowers 1 inch long.

95072. *HOMERIA COLLINA* (Thunb.) Vent. *Iridaceae*.

A perennial plant, native to the Cape of Good Hope, with a globose corm covered with fibrous coats, and usually one convolute-concave narrow leaf, much longer than the stem. The erect stem bears one or more clusters of handsome red-orange flowers grouped in twos or threes.

For previous introduction see 48676.

95073 and 95074.

From Australia. Seeds presented by Ida Richardson, Perth, Western Australia. Received October 28, 1931.

95073. *VERTICORDIA CHRYSOSTACHYS* Meisn. *Myrtaceae*.

95073 and 95074—Continued.

An erect shrub 4 to 6 feet high, with spreading branches and obovate to orbicular, thick scurfy leaves. The calyx and corolla of the yellow flowers are both deeply cut into ciliate lobes, and the flowers are borne in the axils of the leaves near the ends of the branches. Native to Western Australia.

95074. *VERTICORDIA GRANDIS* Drumm. *Myrtaceae*.

A stout shrub 3 to 6 feet high, with erect or spreading branches and orbicular, half-stem-clasping leaves one-half inch in diameter. The flowers are axillary along the branches, each forming, when fully open, a densely plumose crimson tuft fully an inch across. Native to Western Australia.

95075. *LITCHI CHINENSIS* Sonner. *Sapindaceae*. **Lychee.**

From China. Plants growing at the United States Plant Introduction Garden, Glenn Dale, Md., under the Bell No. 2087. Numbered in October, 1931, for convenience in distribution.

95076. *CRATAEGUS AZAROLUS* L. *Malaceae*.

From Syria, Asia Minor. Seeds collected by V. M. Maroukian, Bureau of Plant Industry. Received October 29, 1931.

Aloge. Collected near Aleppo. A small wild tree from 9 to 12 feet high, which is grown both for its fruit and as an ornamental. The small yellow or reddish fruits, about an inch in diameter, are slightly sour and are eaten raw or made into preserves. The tree is native on soil where calcium carbonate predominates.

95077. *LIVISTONA MARIAE* F. Muell. *Phoenicaceae*. **Palm.**

From Australia. Seeds presented by the Council for Scientific and Industrial Research, Canberra. Received October 29, 1931.

An erect palm with fan-shaped leaves divided into narrow plicate segments. Found in Palm Valley in the Macdonnell Range, Central Australia.

For previous introduction see 45980.

95078 to 95084.

From the Union of South Africa. Seeds presented by the director, National Botanic Gardens, Kirstenbosch, Newlands, Cape Province. Received October 30, 1931.

95078. *MORAEA BICOLOR* (Sweet) Steud. *Iridaceae*.

An irislike perennial with a short creeping rhizome, fan-shaped basal rosettes of lanceolate leaves 1 to 2 feet long, and flower stems as tall as the leaves. The yellow flowers are 2 inches across and have brown spots on the outer segments. Native to southern Africa.

95079. *MORAEA POLYSTACHYA* (Thunb.) Ker. *Iridaceae*.

A bulbous plant 2 to 3 feet high, with about four linear leaves 1 to 2 feet long and lax panicles of 5 to 20 clusters of lilac irislike flowers 1 to 2 inches across. There is a bright yellow spot at the base of each outer segment of the perianth. Native to southern Africa.

95078 to 95084—Continued.

95080 to 95084. *URSINIA* spp. Asteraceae.95080. *URSINIA ANTHEMOIDES* (L.) Gaertn.

An erect annual with bipinnately divided leaves, the ultimate lobes being linear filiform. The daisylike flowers are borne on the nodding ends of long naked peduncles, and the rays are yellow above and coppery brown beneath. Native to southern Africa.

95081. *URSINIA FOENICULACEA* (Jacq.) Poir.

A nearly glabrous erect annual with bipinnately divided leaves resembling those of fennel. The daisylike flowers are borne on naked peduncles, and the rays are yellow on both sides. Native to southern Africa.

95082. *URSINIA SCAPIFORMIS* (DC.) N. E. Brown.

A species which closely resembles *U. nudicaulis*, but differs in being a smaller and more slender plant, in having more numerous and sharper-pointed leaf lobes and smaller flower heads. Native to southern Africa.

95083. *URSINIA NUDICAULIS* (Thunb.) N. E. Brown.

A subshrubby perennial with very short tufted densely leafy stems 1 to 2 inches long and pinnately divided leaves the same length. The yellow flowers are borne on slender peduncles 8 to 10 inches long. Native to southern Africa.

95084. *URSINIA VERSICOLOR* (DC.) N. E. Brown.

An erect annual which closely resembles *U. anthemoides*, but the leaves are simply pinnate, and the ray flowers are purple at the base, paler above, and turn purple with age. Native to southern Africa.

95085 to 95088.

From Cuba. Seeds presented by Dr. Robert M. Grey, Harvard Botanic Garden, Soledad, Cienfuegos. Received November 2, 1931.

95085. *ARTABOTRYS UNCINATUS* (Lam.) Merr. Annonaceae. **Fragrant tailgrape**

A half-scandent shrub with long, slender, drooping branches and greenish flowers. The fruits are ovoid, with a pointed slightly curved apex, and are yellowish when ripe. This plant is very highly esteemed by the Chinese because of the rich fragrance of the flowers and fruits. It is commonly planted in their monasteries.

95086. *DIOSPYROS DISCOLOR* Willd. Diospyraceae. **Mabolo**.

The *mabolo* is a medium-sized Philippine tree of vigorous growth, with shining leaves 5 to 10 inches long, pubescent beneath. The velvety dull reddish thin-skinned fruits, 3 inches long and nearly 4 inches in diameter, have firm rather dry sweet white flesh of rather indefinite flavor, also four to eight large seeds. Notwithstanding its size and attractive appearance, it has never gained favor with Europeans, although very popular with the natives.

For previous introduction see 53555.

95085 to 95088—Continued.

95087. *MALPIGHIA GLABRA* L. Malpighiaceae. **Barbados-cherry**.

A tropical American shrub up to 6 feet high, with slender branches and ovate to elliptic entire leaves. The rose-red flowers, nearly an inch across, have fringed petals and are borne in umbels of three to five. The acid scarlet berries, the size of cherries, are used for jams and preserves.

95088. *LIVISTONA HOOGENDORPII* Andre. Phoenicaceae. **Palm**.

A tall Javanese palm with fan-shaped leaves 4 to 6 feet wide on spiny petioles 3 to 5 feet long, red-brown at the base and becoming olive green near the leaf. The leaves are made up of 10 to 12 plicate pendulous segments with five to seven acute lobes at the apex.

For previous introduction see 91783.

95089 and 95090.

From Straits Settlements. Seeds presented by R. E. Holttum, director, Botanic Garden, Singapore. Received November 2, 1931.

95089. *FICUS ALBA* Reinw. Moraceae. **Fig**.

A shrub or small tree, native to the Malay Archipelago, with papery leaves that are white tomentose beneath. The adult leaves are lanceolate serrate and about 5 inches long, but on young plants they are 10 inches long, cordate, and often three lobed. The egg-shaped fruits, produced in sessile pairs, are about one-fourth inch in diameter and are orange until quite ripe, when they become red.

For previous introduction see 67567.

95090. *FICUS CHRYSOCARPA* Reinw. Moraceae. **Fig**.

A low yellow-hairy shrub about 4 feet high, with oblanceolate serrulate leaves 3 inches long, native to the Malay Archipelago. The oblong to globose fruits, borne in axillary pairs, are half an inch in diameter and are covered with golden-yellow hairs until quite ripe, when they turn red.

95091 to 95308. *HORDEUM* spp. Poaceae. **Barley**.

From the Union of Soviet Socialist Republics. Seeds collected by J. G. Dickson, professor of plant pathology, College of Agriculture, Madison, Wis., and agent in cereal investigations, United States Department of Agriculture. Received November 5, 1931.

Selections made from the Vavilov collection at the Valki Experiment Station, near Kharkov, Ukraine. Most of the material selected showed marked resistance to cold, both in the seedling and later period of growth.

95091 to 95110. *HORDEUM DEFICIENTIS* Steud. **Deficient barley**.

95091. No. 218. 95097. No. 407.

95092. No. 287. 95098. No. 415.

95093. No. 288. 95099. No. 418.

95094. No. 404. 95100. No. 419.

95095. No. 405. 95101. No. 433.

95096. No. 406. 95102. No. 439.

95091 to 95308—Continued.

95103. No. 726.	95107. No. 732.
95104. No. 727.	95108. No. 733.
95105. No. 729.	95109. No. 735.
95106. No. 731.	95110. No. 738.
95111 to 95124. HORDEUM DEFICIENTS STEUDELI (Koern.) Harlan. Deficient barley.	
95111. No. 421.	95118. No. 709.
95112. No. 434.	95119. No. 712.
95113. No. 686.	95120. No. 713.
95114. No. 695.	95121. No. 720.
95115. No. 696.	95122. No. 721.
95116. No. 698.	95123. No. 725.
95117. No. 704.	95124. No. 740.
95125 to 95130. HORDEUM DISTICHON NI- GRICANS Seringe. Two-rowed barley.	
95125. No. 154.	95128. No. 249.
95126. No. 168.	95129. No. 341.
95127. No. 169.	95130. No. 744.
95131 to 95148. HORDEUM DISTICHON NU- DUM L. Two-rowed barley.	
95131. No. 105.	95140. No. 148.
95132. No. 106.	95141. No. 150.
95133. No. 107.	95142. No. 151.
95134. No. 108.	95143. No. 294.
95135. No. 115.	95144. No. 751.
95136. No. 116.	95145. No. 753.
95137. No. 139.	95146. No. 754.
95138. No. 140.	95147. No. 755.
95139. No. 145.	95148. No. 770.
95149 to 95213. HORDEUM DISTICHON PAL- MELLA Harlan. Two-rowed barley.	
95149. No. 109.	95172. No. 226.
95150. No. 133.	95173. No. 228.
95151. No. 134.	95174. No. 229.
95152. No. 146.	95175. No. 232.
95153. No. 156.	95176. No. 233.
95154. No. 157.	95177. No. 242.
95155. No. 158.	95178. No. 244.
95156. No. 159.	95179. No. 246.
95157. No. 160.	95180. No. 248.
95158. No. 161.	95181. No. 263.
95159. No. 170.	95182. No. 264.
95160. No. 184.	95183. No. 267.
95161. No. 185.	95184. No. 295.
95162. No. 187.	95185. No. 296.
95163. No. 194.	95186. No. 305.
95164. No. 208.	95187. No. 307.
95165. No. 210.	95188. No. 311
95166. No. 216.	(NBW).
95167. No. 219.	95189. No. 312.
95168. No. 220.	95190. No. 314.
95169. No. 221.	95191. No. 315.
95170. No. 223.	95192. No. 317.
95171. No. 224.	95193. No. 329.

95091 to 95308—Continued.

95194. No. 330.	95204. No. 354.
95195. No. 331.	95205. No. 360.
95196. No. 332.	95206. No. 362.
95197. No. 333.	95207. No. 375.
95198. No. 334.	95208. No. 426.
95199. No. 335.	95209. No. 746.
95200. No. 338.	95210. No. 761.
95201. No. 339.	95211. No. 762.
95202. No. 349.	95212. No. 765.
95203. No. 353.	95213. No. 768.
95214. HORDEUM VULGARE PALLIDUM Se- ringe. Six-rowed barley.	
No. 790.	
95215 to 95221. HORDEUM DISTICHON PAL- MELLA Harlan. Two-rowed barley.	
95215. No. 790-a.	95219. No. 803-a.
95216. No. 800.	95220. No. 805.
95217. No. 801.	95221. No. 808.
95218. No. 803.	
95222. HORDEUM VULGARE COELESTE L. Six-rowed barley.	
No. 397.	
95223 to 95234. HORDEUM VULGARE NI- GRUM (Willd.) Beaven. Six-rowed barley.	
95223. No. 143.	95229. No. 511.
95224. No. 144.	95230. No. 512.
95225. No. 468.	95231. No. 515.
95226. No. 476.	95232. No. 525.
95227. No. 493.	95233. No. 526.
95228. No. 507.	95234. No. 530.
95235 and 95236. HORDEUM spp. Abyssinian intermediate barley.	
95235. No. 556.	95236. No. 557.
95237 to 95244. HORDEUM VULGARE NI- GRUM (Willd.) Beaven. Six-rowed barley.	
95237. No. 583.	95241. No. 638.
95238. No. 618.	95242. No. 647.
95239. No. 630.	95243. No. 648.
95240. No. 634.	95244. No. 659.
95245 to 95299. HORDEUM VULGARE PALLI- DUM Seringe. Six-rowed barley.	
95245. No. 119.	95257. No. 191.
95246. No. 121.	95258. No. 192.
95247. No.	95259. No. 205.
122/744.	95260. No. 217.
95248. No. 123.	95261. No. 231.
95249. No. 136.	95262. No. 234.
95250. No. 173.	95263. No. 235.
95251. No. 174	95264. No. 241.
95252. No. 175.	95265. No. 278.
95253. No. 176.	95266. No. 290.
95254. No. 186.	95267. No. 279.
95255. No. 188.	95268. No. 395.
95256. No. 189.	95269. No. 399.

95091 to 95308—Continued.

95270. No. 399-a.	95286. No. 498.
95271. No. 401-b.	95287. No. 500.
95272. No. 452.	95288. No. 503.
95273. No. 453.	95289. No. 504.
95274. No. 454.	95290. No. 505.
95275. No. 455.	95291. No. 509.
95276. No. 463.	95292. No. 513.
95277. No. 484.	95293. No. 514.
95278. No.	95294. No.

485/1989. 583/2091.

95279. No. 488.	95295. No. 627.
95280. No. 490.	95296. No. 628.
95281. No. 491.	95297. No.
95282. No. 494.	745/411.
95283. No. 495.	95298. No. 771.
95284. No. 496.	95299. No. 786.
95285. No. 497.	

95300 to 95308. HORDEUM sp.

Abyssinian intermediate barley.

95300. No. 580.	
95301. No. 589 (Pl. Sel. 1).	
95302. No. 589 (Pl. Sel. 2).	
95303. No. 590.	95306. No. 596.
95304. No. 591.	95307. No. 599.
95305. No. 595.	95308. No. 612.

95309 to 95313.

From France. Seeds presented by A. Gerard, La Fosse, Loir-et-Cher. Received November 7, 1931.

95309. ABIES FIRMA Sieb. and Zucc. Pinaceae. Momi fir.

A Japanese tree up to 150 feet high, with a broadly pyramidal crown. The pectinate leaves, over 1 inch long, are firm and are sharply bifid on young plants and emarginate on older ones. The upright cylindrical cones, 4 to 6 inches long, are yellowish green until mature.

95310. MAGNOLIA KOBUS DC. Magnoliaceae. Kobus magnolia.

A deciduous tree up to 30 feet high in Japan, but usually shrubby in cultivation. The white flowers, about 4 inches across, appear before the leaves, which are broadly obovate, light green, and 4 to 5 inches long.

95311. MAGNOLIA MACROPHYLLA Michx. Magnoliaceae. Bigleaf magnolia.

A round-headed tree up to 50 feet high, native to the southeastern part of the United States. The oblong-obovate leaves are sometimes 3 feet long, and the fragrant creamy-white, cup-shaped flowers are 12 inches across and are followed by rosy globose-ovoid fruits.

95312. PINUS BUNGEANA Zucc. Pinaceae. Lacebark pine.

A tree sometimes 100 feet high, native to China, with the bark of mature trees exfoliating in large scales, leaving white areas, which on the old trees become chalky white.

For previous introduction see 92056.

95309 to 95313—Continued.

95313. PINUS PARVIFLORA Sieb. and Zucc. Pinaceae. Japanese white pine.

A dense pyramidal 5-needle pine often 100 feet high, with slender horizontal branches. The leaves are stiff and twisted, forming dense brushlike tufts at the ends of the branchlets. The cones are reddish brown and very decorative. Native to Japan.

For previous introduction see 75681.

95314 to 95344.

From Australia. Seeds presented by Ida Richardson, Perth, Western Australia. Received November 11, 1931.

95314. ACACIA ACUMINATA Benth. Mimosaceae.

A tree 30 to 40 feet high, native to Western Australia, with falcate linear phyllodes 3 to 10 inches long and small flower spikes an inch long. The wood, which has an odor resembling raspberry jam, is dark reddish brown, close-grained, and hard and is suitable for ornamental woodwork and for fence posts.

For previous introduction see 77273.

95315. ACACIA ROSTELLIFERA Benth. Mimosaceae.

A tall shrub or small tree from Western Australia, with graceful glabrous branches. The thick linear-lanceolate phyllodes are 2 to 5 inches long. The few flower heads are in short racemes.

For previous introduction see 48062.

95316. BEAUFORTIA SQUARROSA Schauer. Myrtaceae.

A low straggling shrub 3 to 4 feet high, native to Western Australia. The small leaves, opposite in alternate pairs, are obovate, recurved, and concave. The red flowers, with crimson stamens an inch long, are in dense terminal clusters through which the new shoots grow.

95317. DAMPIERA DIELSII E. Pritz. Goodeniaceae.

A small bushy shrub over a foot high, with prominently angled, long graceful branches. The upper leaves are minute and distant, the lower ones are obovate, rigid, and about an inch long. The small deep-violet flowers are borne singly in the upper axils. Native to Western Australia.

95318. EUCALYPTUS LEHMANNI (Schauer) Preiss. Myrtaceae. Lehmann gum.

A large shrub or small tree with rough reddish bark peeling off in irregular sheets. The green-yellow flowers open from July to September. Native to Western Australia.

For previous introduction see 65553.

95319. EREMAEA sp. Myrtaceae.

The eremaeas are bushy Australian shrubs with heathlike leaves and inconspicuous flowers.

95320. GREVILLEA sp. Proteaceae.

The grevilleas are ornamental Australian trees or shrubs with alternate, usually bipinnately compound leaves and axillary or terminal racemes of small flowers, often golden yellow and sometimes of value for honey.

95314 to 95344—Continued.

95321. GYROSTEMON RAMULOSUS Desf.
Phytolaccaceae.

An erect bushy somewhat fleshy shrub 3 to 8 feet high, native to Australia. The linear-terete leaves are 1 to 3 inches long, and the small, inconspicuous flowers are axillary on reflexed pedicels.

95322. HAKEA LAURINA R. Br. Proteaceae.
Sea-urchin hakea.

A tall Australian shrub up to 30 feet high, remarkable for its showy crimson flowers. These are in globular heads, about 2 inches in diameter, from which numerous golden styles protrude an inch or so in all directions.

For previous introduction see 76919.

95323. HAKEA MULTILINEATA Meissn.
Proteaceae.

This tall Australian shrub is closely related to *Hakea laurina*, differing only in the venation of the leaves, the oblong shape of the flower cluster, and other minor characters.

For previous introduction see 64484.

95324. HELIPTERUM MANGLESII (Benth.)
F. Muell. Asteraceae.

An erect annual 1 to 2 feet high, native to Australia and related to the everlasting flowers. The ovate-oblong leaves clasp the stem with rounded auricles, and the rays of the showy flower heads vary from pale to rich pink, with deep purple at the base.

95325 to 95327. HIBISCUS spp. Malvaceae.

95325. HIBISCUS sp.

The rosemallows are herbs, shrubs, or trees, usually stellate pubescent, with variously divided leaves and large showy flowers.

95326. HIBISCUS DRUMMONDII Turcz.

A slender branching shrub with short rigid stellate hairs. The coarsely toothed leaves are divided into three linear-oblong segments 1 inch long, and the rather large purple flowers are borne in the axils of the upper leaves. It is native to Western Australia.

95327. HIBISCUS HUEGELII Endl.

A tall shrub, native to Australia, with 3 to 5 lobed, coarsely toothed leaves 1 to 3 inches long and large violet-purple flowers.

95328. LACHNOSTACHYS WALCOTTII F.
Muell. Verbenaceae.

A tall shrub with all parts covered with a soft cottony wool. The thick oblong-linear leaves, 1 to 2 inches long, have revolute margins, and the small flowers, each a woolly ball one-twelfth inch in diameter, are crowded in dense corymbose panicles. Native to Western Australia.

95329. LESCHENAULTIA LINARIOIDES DC.
Goodeniaceae.

A shrub, either prostrate or several feet high, with the branches incurved at the end, slender leaves about one-half inch long, and leafy corymbs of rather large flowers. The tubular corolla is 2-lipped, the upper lobe is short and reddish, while the winged lower lip, nearly an inch long, is yellowish green. It is native to Western Australia.

95314 to 95344—Continued.

95330. MARIANTHUS RINGENS F. Muell.
Pittosporaceae.

A climbing shrub with coriaceous entire linear-lanceolate leaves 2 inches long and dense terminal corymbs of red flowers. The oblique petals, nearly an inch long, have an obovate spreading blade and long erect claws. It is native to Western Australia.

95331 to 95333. MELALEUCA spp. Myrtaceae.

95331. MELALEUCA ELLIPTICA Labill.

A tall evergreen shrub, native to Western Australia, with elliptical evergreen leaves half an inch long and cylindrical spikes of large showy red flowers.

For previous introduction see 90713.

95332. MELALEUCA HYPERICIFOLIA J. E. Smith.
Dotted melaleuca.

A tall glabrous shrub with opposite lanceolate leaves 1 to 2 inches long, dotted beneath. The rich-red flowers are borne in dense spikes 2 inches long and nearly as wide. It is native to Australia.

For previous introduction see 90714.

95333. MELALEUCA RADULA Lindl.

A tall bushy shrub with opposite linear concave leaves up to 2 inches long and rather large pink or white flowers in pairs at the bases of the branchlets. Native to Western Australia.

For previous introduction see 67082.

95334. PILEANTHUS FILIFOLIUS Meissn.
Myrtaceae.

An erect branching heathlike shrub with linear terete or 3-angled leaves less than half an inch long. The small axillary flowers are on pedicels half an inch long, and have a yellow calyx and pink petals. It is native to Western Australia.

95335. PITYRODIA OLDFIELDII F. Muell.
Verbenaceae.

An erect shrub 2 to 3 feet high, with the branches and leaves covered with a dense woolly tomentum. The opposite leaves, 1 to 2 inches long, are broadly ovate with undulate margins. The pink flowers, nearly an inch long, are in axillary clusters of one to three. Native to Western Australia.

95336. PITYRODIA VERBASCINA F. Muell.
Verbenaceae.

A stout erect shrub densely clothed with woolly tomentum, like *Pityrodia oldfieldii*, but the wool is golden or orange red.

95337. PULTENAEA sp. Fabaceae.

The pultenaeas are Australian leguminous shrubs with simple usually alternate leaves and pea-shaped yellow-orange to purple flowers in leafy clusters at the ends of the branches.

95338. EUCARYA SPICATA (R. Br.) Sprag.
and Summ. (*Santalum spicatum* A. DC.) Santalaceae.

A shrub or tree from 9 to 25 feet high, with dark-green coriaceous lanceolate to obovate leaves 3 to 5 inches long. The small fragrant flowers are in

95314 to 95344—Continued.

terminal panicles and are followed by yellowish fruits about 1 inch in diameter. It is native to South Australia.

95339. *TRICHINIUM EXALTATUM* Benth. Amaranthaceae.

A stout perennial 2 to 3 feet high, with thick branches, thick oblong-lanceolate leaves 3 to 5 inches long, and cylindrical spikes 2 inches in diameter of dull-red tubular flowers nearly an inch long. It resembles the princesfeather, to which it is closely related.

95340 to 95343. *VERTICORDIA* spp. Myrtaceae.95340. *VERTICORDIA GRANDIS* Drumm.

For previous introduction and description see 95074.

95341. *VERTICORDIA MONADELPHA* Turcz.

A much-branched heathlike shrub with linear 3-cornered leaves about one-half inch long. The rather large flowers vary from pink to white, and the calyx and corolla are fringed with long silky hairs one-half inch long. It is native to Western Australia.

95342. *VERTICORDIA MUELLERIANA* E. Pritz.

A small erect shrub about 2 feet high, with small clasping rounded-reniform leaves which have hyaline margins. The very small purple-violet flowers are sessile in the upper axils, forming elongated spikes. Native to sandy places in Western Australia.

95343. *VERTICORDIA POLYTRICHA* Benth.

An erect bushy shrub with linear 3-cornered or half-round leaves less than one-fourth inch long. The small ciliate flowers are borne in dense leafy terminal corymbs. It is native to Western Australia.

95344. *XYLOMELUM ANGUSTIFOLIUM* Kipp. Proteaceae.

An erect shrub 6 to 8 feet high, with thick flat linear-lanceolate leaves 4 to 6 inches long, veinless except the midrib. The small silky flowers are borne in loose spikes and are followed by woody ovoid densely tomentose fruits, 2 to 3 inches long, often called "wooden pears."

95345. *PHLEUM PRATENSE* L. Poaceae. Timothy.

From Scotland. Seeds presented by Dr. J. W. Gregor, Scottish Society for Research in Plant Breeding, Craigs House, Corstorphine, Midlothian. Received November 9, 1931.

A collection of timothy representing forms occurring in Great Britain and northern continental Europe. Each packet contained seeds from a single plant. Introduced for the use of department specialists.

95346. *ANANAS SATIVUS* Schult. f. Bromeliaceae. Pineapple.

From Puerto Rico. Plants presented by G. N. Walcott, Puerto Rico Department of Agriculture. Received November 11, 1931.

Cabazona.

95347. *CINNAMOMUM ZEYLANICUM* Garc. Lauraceae. Cinnamon.

From the island of Trinidad. Seeds presented by R. C. Button, manager of nursery, Royal Botanic Garden. Received November 13, 1931.

A small evergreen tree 20 to 30 feet high, with very stiff ovate leaves 4 to 7 inches long. The small yellow-white flowers are borne in loose silky clusters. It is native to southeastern Asia.

95348. *BRASSICA OLERACEA BOTRYTIS* L. Brassicaceae. Cauliflower.

From Australia. Seeds presented by Herbert J. Rumsey & Sons (Ltd.), Dundas, New South Wales. Received November 13, 1931.

A blue-leaved sport originating from seeds sent to Mr. Rumsey from the Arlington Experiment Farm, Rosslyn, Va., by Professor Tracy.

95349. *CYNODON TRANSVAALENSIS* Burt Davy. Poaceae. Grass.

From the Union of South Africa. Roots presented by E. Percy Phillips, principal botanist, division of plant industry, Department of Agriculture, Pretoria. Received December 30, 1930. Numbered in November, 1931.

A densely caespitose perennial grass with slender culms and green acute leaves an inch or more in length. It spreads rapidly, is compact, and is excellent for lawns and bowling greens, for which purpose it is now the principal grass in the Transvaal. It is known under the names Florida kweek or Florida grass (after the town of Florida, near Johannesburg), Germiston grass, etc.

95350 and 95351. *ATALANTIA MISSIONIS* (Wight) Oliver. Rutaceae.

From Ceylon. Seeds presented by the deputy conservator of forests, Jaffna. Received November 19, 1931.

A small tree, much resembling an orange tree in habit, with pale-gray bark and branches armed with short, stiff spines, rather large stiff leaves with indistinct veining, and very sweet white flowers. The fruit is like a small dark orange. The pale yellow-white wood is close grained, smooth, and suitable for cabinetwork.

For previous introduction see 85028.

95350. Collected in the Residency Park.

95351. Collected in the forest.

95352 to 95363. *ALLIUM* spp. Liliaceae. Onion.

From the Netherlands. Bulbs purchased from C. G. Van Tubergen (Ltd.), Zwanenburg Nurseries, Haarlem. Received November 20, 1931.

95362. *ALLIUM ALBOPILOSUM* C. H. Wright.

A trans-Caspian species which has probably the largest flower heads of the genus. The bulbs are large, and the strap-shaped leaves, 18 inches long, have longitudinal lines of white hairs beneath the edges. The scape is nearly 2 feet high and bears large heads 9 inches across, each composed of from 60 to 80 deep-lilac flowers.

For previous introduction see 69899.

95352 to 95363—Continued.

95353. *ALLIUM ATROPURPUREUM* Waldst. and Kit.

An upright, rather tall onion, sometimes over 3 feet high, with two to four narrow, linear leaves much shorter than the stem. The small dark-purple flowers, sometimes rose-purple with a darker middle stripe, are in dense hemispherical or spherical clusters. Native to meadows in southeastern Europe.

For previous introduction see 82384.

95354. *ALLIUM CAERULEUM* Pall.

A blue-flowered onion with slender grassy leaves and 14-inch stalks bearing close heads of small deep-blue flowers.

For previous introduction see 82385.

95355. *ALLIUM DIOSCORIDIS* Sibth. and Smith.

A tall, white-flowered onion up to 3 feet high, with long broadly linear keeled leaves as long as the scape. The nodding umbel consists of 20 to 30 flowers. Native to southern France and Corsica.

95356. *ALLIUM DOUGLASHII* Hook.

A perennial with an ovoid bulb about 1 inch thick, native to the northwestern part of the United States. The sword-shaped leaves are 4 to 6 inches long, and the scape, 18 inches high, bears an umbel of rose-colored flowers.

95357. *ALLIUM MULTIBULBOSUM* Jacq.

An onion from central Europe, closely related to *Allium nigrum*, but differing in the numerous spherical bulblets, its broader and shorter leaves, and in certain floral characters. The flowers, entirely white or with a reddish central stripe in the petals, are in a dense globular cluster. Native to the meadows of central Europe.

For previous introduction see 82015.

95358. *ALLIUM PENDULINUM*. Tenore.

An alpine, native to Italy, with linear keeled leaves and long-peduncled nodding whitish flowers.

For previous introduction see 82391.

95359. *ALLIUM ROSENBACHANUM* Regel.

A bulbous perennial, native to Turkistan, with oblong lanceolate leaves 8 inches high and a large globular umbel of purple flowers on a scape 2 feet high.

Variety *album*. A white-flowered form.

For previous introduction see 82392.

95360. *ALLIUM ROSEUM* L.

A plant about 1 foot high, with strap-shaped leaves rolled inward at the top and pale-rose flowers produced in umbels. Native to southern Europe.

Variety *grandiflorum*. A horticultural strain with flower heads about twice as large as the type, and large flowers.

95361. *ALLIUM SPHAEROCEPHALON* L.

The upright stem of this European onion is 1 to 2 feet high and is leafy only a third of its length. The half terete leaves are much shorter than the stem. The bright or dark-purple flowers are freely borne in globose or ovoid umbels about an inch in diameter.

95352 to 95363—Continued.

95362. *ALLIUM* sp.

No. 72. Persia. A form with broad leaves.

95363. *ALLIUM* sp.

A form with a huge scillalike shoot.

95364. *ORYZA LATIFOLIA* Desv. Poaceae.

From Cuba. Seeds presented by Dr. D. L. Van Dyne, Director, Tropical Plant Research Foundation, Central Baragua. Received November 28, 1931.

A perennial wild rice distributed through parts of tropical Asia, Africa, and America. The tufted stems become 6 to 8 feet high, and the plant is said to flower and produce seeds throughout the year. The smooth leaves are 1 to 2 feet long and about an inch wide, and the erect spike is up to 4 inches long. Introduced for the use of department specialists working with rice breeding.

For previous introduction see 67998.

95365. *PRUNUS YEDOENSIS* Mats. Amygdalaceae. Yoshino cherry.

From Chevy Chase, D. C. Scions collected by David Fairchild, agricultural explorer, Bureau of Plant Industry. Received November 23, 1931.

A handsome Japanese tree, ultimately about 40 feet high, with smooth pale-gray bark, thick wide-spreading branches, and large sharply toothed leaves which normally appear after the flowers have passed their prime. The flowers, borne in profusion in the spring, are single, pale pink, fading to white, and about an inch across. The small black fruits are sometimes produced abundantly and afford an easy means of propagation.

For previous introduction see 69108.

95366. *DEGUELLIA ELLIPTICA* (Roxb.) Taub. (*Derris elliptica* Roxb.). Fabaceae.

From the Canal Zone. Plants presented by J. E. Higgins, director, Canal Zone Experiment Gardens, Summit. Received November 23, 1931.

A large handsome climbing vine, native to southeastern Asia. The compound leaves, 1 foot long, are made up of 9 to 13 thin leathery obovate leaflets 4 to 6 inches long, and the bright-red pea-shaped flowers, 1 inch long, are borne in lax racemes a foot in length.

95367. *NEPHELIUM LAPPACEUM* L. Sapindaceae. Rambutan.

From Central America. Seeds presented by Wilson Popenoe, Research Department, United Fruit Co., Tela, Honduras. Received November 24, 1931.

An erect stately tropical tree 35 to 40 feet high, native to the Malay Archipelago and not yet extensively cultivated elsewhere. The compound leaves are composed of five to seven pairs of elliptic obovate or oblong glabrate leaflets about 4 inches long, shining and dark green above, paler beneath. The small flowers are in loose axillary and terminal panicles. The fruits which are produced in clusters of 10 or 12, are oval, about 2 inches in length, and covered with soft fleshy spines

95367—Continued.

less than an inch long. They are crimson, sometimes greenish, yellowish, or orange yellow. The outer covering, from which the spines arise, is thin and leathery and is easily torn off, exposing the white translucent juicy flesh (aril) which adheres to the oblong pointed and flattened seed. The flavor is acidulous, somewhat suggesting that of the grape.

For previous introduction see 56780.

95368. *MENZIESIA FERRUGINEA* J. E. Smith. Ericaceae.

From Canada. Seeds presented by Mrs. Susan Stoker, Duncan, Vancouver Island, British Columbia. Received November 25, 1931.

An erect shrub, 6 to 9 feet high, native to Canada and Alaska. The broadly oblanceolate leaves are 2 inches long, and the pink bell-shaped flowers are borne in terminal clusters.

95369 to 95371. *FICUS* spp. Moraceae.

From the Philippine Islands. Seeds presented by Arthur F. Fischer, Director of Forestry, Department of Agriculture and Natural Resources. Received November 25, 1931.

95369. *FICUS MINAHASSAE* (Teysm. and De Vr.) Miquel.

Hagimit. A rather small tropical tree, native to the Netherland East Indies, with a soft spongy trunk, irregularly heart-shaped acute leaves, and numerous small fruits about a quarter of an inch long.

For previous introduction see 80419.

95370. *FICUS NOTA* (Blanco) Merr.

Tibig, one of the best of the wild figs. The tree is upright and of medium size. The fruits, produced in short racemes on the trunk from the ground up to the stout branches, are nearly 2 inches in diameter, fleshy and juicy, and very sweet for a wild fruit, with the characteristic flavor of the cultivated fig. The tree does best in a fairly moist climate with the rainfall equally distributed throughout the year. It is probably very tender.

For previous introduction see 61010.

95371. *FICUS ODORATA* (Blanco) Merr.

Pakiling. A tree, native to the Philippine Islands, 15 to 18 feet high. It is marked by its very rough, fragrant leaves which are sublanceolate with a 1-sided rounded margin at the base.

For previous introduction see 80421.

95372 and 95373.

From France. Seeds presented by A. Gerard, La Fosse, Loir-et-Cher. Received November 27, 1931.

95372. *DAVIDIA INVOLUCRATA* VILMORINIANA (Dode) HemsL. Cornaceae.
Dovetree.

A pyramidal Chinese tree with cordate serrate yellow-green leaves and small flower heads each with two unequal creamy white bracts, the longer one pendulous and 6 inches long. The pear-shaped fruits, 1 to 2 inches long, are green with a purple bloom.

For previous introduction see 76573.

95372 and 95373—Continued.

95373. *PINUS ARMANDI* Franch. Pinaceae.
Armand pine.

A tall pine, 60 to 100 feet high, with trunks often 6 feet in diameter, found growing between 9,000 and 10,000 feet altitude in moist regions. It is native to Yunnan, China.

For previous introduction see 84027.

95374. *PHASEOLUS VULGARIS* L. Fabaceae.
Common bean.

From Mexico. Seeds presented by F. Pot-hast, Rancho "La Union," Guerrero, Chihuahua. Received November 27, 1931.

A locally grown variety.

95375. *PINUS MERKUSII* Jungh. and De Vr. Pinaceae.
Pine.

From Java. Seeds presented by the director, Department of Agriculture, Buitenzorg, through the American consul-general at Batavia. Received November 27, 1931.

A giant pine native in a vast area of poor volcanic soil in northern Sumatra. It sometimes grows to a height of 240 feet, with a diameter of 4 feet, and yields superior grades of turpentine and resin.

For previous introduction see 80103.

95376. *CASUARINA LUEHMANNI* R. T. Baker. Casuarinaceae.

From Australia. Seeds presented by Dr. Alexander McTaggart, senior plant introduction officer, Commonwealth Forestry Bureau, Canberra. Received November 28, 1931.

Bull oak. From near Gilgandra, New South Wales. A tree 80 to 100 feet high, native to Australia, with light-colored branchlets and flattened cones half an inch in diameter. The wood is hard and close-grained.

For previous introduction see 92484.

95377. *IPOMOEA BATATAS* (L.) Poir. Convolvulaceae.
Sweetpotato.

From the Union of Soviet Socialist Republics. Cuttings presented by V. P. Alekseev, plant introducer, All-Union Institute of Plant Industry, Sukhum Subtropical Branch, Sukhum, Caucasus. Received October 1, 1931. Numbered in November, 1932.

Selected seedling varieties which originated at the Sukhum Subtropical Branch Station.

95378. *GLYCINE JAVANICA* L. Fabaceae.

From Africa. Seeds presented by the Tanganyika Territory Department of Agriculture, Northeastern Circle, Moshi. Received December 1, 1931.

A wide-climbing perennial vine, native to Asia and Africa, where it is used as a cover crop. The slender stems are silky pubescent, the trifoliate leaves have ovate leaflets 2 to 4 inches long, finely pubescent beneath, and the small bright-red flowers are in axillary racemes 3 to 6 inches long.

95379. LIBOCEDRUS CHILENSIS (Don)
Engl. Pinaceae.

Chilean incense-cedar.

From Isle Victoria, Argentina, South America. Seeds presented by Thornton T. Munger, director, Pacific Northwest Forest Experiment Station, Portland, Oreg. Received December 1, 1931.

An evergreen tree 60 feet high, native to Chile, with a compact pyramidal head. The flattened branchlets bear small erect-spreading glaucous green leaves with a silvery line beneath, and the ovate-oblong cones are half an inch long.

95380 to 95396.

From China. Seeds collected by the Forrest Expedition, 1930-32, to southwestern China and presented by Maj. Lionel de Rothschild, London, England. Received December 1, 1931.

95380. CRATAEGUS sp. Malaceae.
Hawthorn.

No. 29959.

95381. CORYLOPSIS sp. Hamamelidaceae.

No. 29915. *Corylopsis* is a genus of shrubs related to the witch-hazel, with nodding spikes of fragrant yellow flowers appearing before the leaves which resemble those of hazel.

95382. (Undetermined.)

No. 29930. Received as *Hamamelis* sp., but the seeds do not appear to belong to that genus.

95383. LITSEA sp. Lauraceae.

No. 29730. *Litsea* is a genus of shrubs or small trees with alternate leathery leaves, small white or yellow flowers in umbel-like clusters, and small, usually black fruits.

95384. NOMOCHARIS LOPHOPHORA (Bur. and Franch.) Balf. f. Liliaceae.

A bulbous plant from Szechwan, China, with ovate to lanceolate leaves about 3 inches long and yellow, somewhat lily-like flowers, often red punctate, borne singly on a scape 6 to 12 inches high.

95385 to 95390. PRIMULA spp. Primulaceae.
Primrose.

95385. PRIMULA BURMANICA Balf. and Ward.

No. 29919. A stout, moisture-loving primrose from western China, with oblanceolate leaves up to a foot long and red-purple flowers borne on a scape 2 feet high. It is a member of the section *Candelabra*.

For previous introduction see 79098.

95386. PRIMULA BOREIO-CALLIANTHA Balf. and Forrest.

No. 29925. A primrose of the section *Nivalis*, with white-mealy lanceolate leaves and flowers in small umbels borne on a stout scape half again as long as the leaves. Native to southwestern China.

95387. PRIMULA PLANIFLORA Hort.

A name for which a place of publication and a description have not been found. Said to be related to *P. poissoni*.

95388. PRIMULA ROCKII W. W. Smith.

A small, woody primula, related to the section *Bullatae*, to which *P.*

95380 to 95396—Continued.

forrestii belongs, but very distinct. The large, deep-orange flowers are single on short peduncles and droop; the leaves are smaller and darker green; found at 10,000 feet altitude.

For previous introduction see 84029.

95389. PRIMULA SINOMOLLIS Balf. and Forr.

No. 29917. A Chinese primrose from the section *Mollis*, with a fleshy rhizome and cordate-elliptic leathery leaves up to 6 inches long. The flowers, reddish purple with pale purple lines down the centers of the petals, are in clusters of four to six on a scape often a foot high.

95390. PRIMULA SONCHIFOLIA Franch.

A primrose with obovate-oblong doubly sinuate papery leaves 6 to 8 inches long, native to southwestern China. The simple umbel of short-campanulate violet flowers is borne on a pilose scape as tall as the leaves.

95391. PRUNUS sp. Amygdalaceae.
Cherry.

No. 30001.

95392. PRUNUS sp. Amygdalaceae.
Cherry.

Mei-Hsi, 167.

95393. QUERCUS sp. Fagaceae.
Oak.

No. 29967.

95394. ROSA sp. Rosaceae.
Rose.

No. 29485.

95395. THEA FORRESTII Diels. Theaceae.

A shrub 3 to 8 feet high with slender branches, ovate or lanceolate papery leaves about an inch long, and small creamy white flowers. Native to wooded gullies in Yunnan, China.

95396. THEA PITARDII (C. Stuart) Rehder (T. speciosa Pitard). Theaceae.

A shrub 3 to 6 feet high, native to Yunnan, with coriaceous ovate to oblanceolate serrate leaves 2 to 4 inches long and rose-pink flowers 1 to 2 inches across.

For previous introduction see 93993.

95397. SOLANUM AVICULARE Forst. f. Solanaceae.

From Egypt. Seeds presented by Alfred Bircher, Middle Egypt Botanic Station, El Saff. Received December 1, 1931.

A branching Australian shrub with lanceolate leaves 10 inches long, cymes of 3 to 10 large dark-purple flowers, and drooping yellowish fruits an inch in diameter which are used for making marmalade.

For previous introduction see 77207.

95398 and 95399. HORDEUM VULGARE COELESTE L. Poaceae.

Six-rowed barley.

From Japan. Seeds presented by S. Kashiwada, Plant Breeding Laboratory, Kyusku Imperial University, Fukuoka. Received November 28, 1931.

Two varieties of glutinous barley, introduced for the use of department specialists.

95398. *Murasaki-mochi*.

95399. *Shiro-mochi*.

95400 to 95414.

From Sitkalidak Island, Alaska. Seeds purchased from Walter J. Eyerdam, Seattle, Wash. Received December 5, 1931.

95400. *ACONITUM* sp. Ranunculaceae.

95401. *ARNICA* sp. Asteraceae.

No. 1. *Mountain dandelion*.

95402. *CAMPANULA ROTUNDIFOLIA ALASKANA* A. Gray. Campanulaceae.

Harebell.

A dwarf form of the well-known harebell, with the radical leaves cordate and the stem leaves ovate at the base and becoming lanceolate toward the top of the plant. The delicate blue flowers are about an inch long.

95403. *GERANIUM ERIANTHUM* DC. Geraniaceae.

Cranesbill.

No. 11. A herbaceous perennial with five to seven palmately lobed leaves and rose-purple flowers 1 to 2 inches across. Native to Kamchatka and northwestern North America.

For previous introduction see 75675.

95404. *LUPINUS* sp. Fabaceae. **Lupine.**

No. 6.

95405. *PETASITES* sp. Asteraceae.

Mountain coltsfoot.

95406. *POLEMONIUM* sp. Polemoniaceae.

No. 14.

95407. *RANUNCULUS* sp. Ranunculaceae.

No. 2.

95408. *SCROPHULARIA* sp. Scrophulariaceae.

No. 15.

95409. *SENECIO* sp. Asteraceae.

A yellow composite found growing near the seacoast in salty sand.

95410. *VIOLA* sp. Violaceae. **Violet.**

95411. (Undetermined.)

A small plant with blue flowers, found growing in sand.

95412 to 95414 were collected on Evans Island, Prince William Sound.

95412. (Undetermined.)

95413. (Undetermined.)

95414. (Undetermined.)

95415. *PISTACIA ATLANTICA* Desf. Anacardiaceae.

Mount Atlas pistache.

From Tunisia. Seeds presented by Robert W. Hodgson, University of California. Received December 8, 1931.

A tree, native to northern Africa, up to 50 feet high, with many woody branches which form a dense head. The blue, somewhat fleshy drupes are about the size of peas. A resinous gum flows from the bark of the trunk and branches at various times of the year, especially in summer, and hardens to a pale-yellow color. This gum has a pleasant aromatic odor and taste, and thickens in plates covering the branches. The Arabs collect this substance in autumn and winter and chew it to whiten the teeth and sweeten the breath.

For previous introduction see 48163.

95416. *STAUNTONIA HEXAPHYLLA* Decaisne. Lardizabalaceae.

From Japan. Seeds purchased from the Chugai Shokubutsu Yen, Yamamoto, Kawabegun, near Kobe. Received December 11, 1931.

A climbing evergreen shrub, native to Japan, with palmately compound leaves made up of three to seven ovate leaflets, 2 inches long. The fragrant white flowers are borne in corymbose racemes and are followed by ellipsoid fruits about 4 inches long, splashed with scarlet.

95417 to 95443.

From Sitkalidak Island, Alaska. Plant material purchased from Walter J. Eyerdam, Seattle, Wash. Received December 8, 1931.

95417. *ANDROSACE* sp. Primulaceae.

Plants.

95418. *ANEMONE* sp. Ranunculaceae.

Plants.

95419. *CAMPANULA ROTUNDIFOLIA ALASKANA* A. Gray. Campanulaceae.

Harebell.

Plants.

For previous introduction and description see 95402.

95420. *DRABA BOREALIS* DC. Brassicaceae.

Seeds of a stellate-pubescent herbaceous perennial 2 to 12 inches high, native to the Arctic regions. The ovate leaves are less than half an inch long, and the small flowers are white.

95421. *LOISELEURIA PROCUMBENS* (L.) Desv. Ericaceae. **Alpine-azalea.**

Plants and seeds of a low straggling evergreen shrub native to the Arctic regions. The small linear-oblong leaves a quarter of an inch long are dark green above, paler below, and have strongly revolute margins. The small bell-shaped pink and white flowers are in clusters of one to five at the ends of the branches.

95422. *CLAYTONIA* sp. Portulacaceae.

Plants.

95423. *CASSIOPE STELLERIANA* (Pall.) DC. Ericaceae.

Plants and seeds of a low evergreen shrub with small oblong scalelike leaves and solitary pinkish terminal flowers. Native to northwestern North America.

95424. *FRITILLARIA CAMSCHATCENSIS* (L.) Ker. Liliaceae.

Bulbs of a lilylike perennial with 1-flowered to 3-flowered stems 6 to 18 inches high. The 10 to 15 leaves are lanceolate, the lower ones in whorls, and the chocolate-purple flowers are about an inch long. Native to Siberia and Alaska.

95425. *GENTIANA* sp. Gentianaceae. **Gentian.**

Plants.

95426. *HEUCHERA GLABRA* Willd. Saxifragaceae.

Plants of a perennial herb with smooth cordate-orbicular 5-lobed to 7-lobed basal leaves and erect or curved stems 1 to 2 feet high bearing panicles of small white flowers. It is native to northwestern North America.

95417 to 95443—Continued.

95427. *PNEUMARIA MARITIMA* (L.) Hill
(*Mertensia maritima* S. F. Gray).
Boraginaceae.

Plants of a fleshy herbaceous perennial, with spreading branches 3 to 15 inches long, thick ovate to oblong, very glaucous leaves 1 to 4 inches long, and blue or nearly white bell-shaped flowers one-quarter inch long. It is native to the sandy beaches of the North Temperate Zone.

95428. *POLEMONIUM* sp. Polemoniaceae.
Plants.

95429. *POLYPODIUM* sp. Polypodiaceae.
Plants. Polypody.

95430. *POTENTILLA VILLOSA* Pall. Rosaceae.

Plants of a herbaceous perennial 4 to 12 inches high, which is densely silky villous. The long-petioled trifoliate basal leaves, 9 to 15 inches long, crenate-serrate on the margin and white tomentose beneath, form beautiful rosettes. The showy golden-yellow flowers, an inch across, are borne in few-flowered clusters which are densely silky villous.

95431. *SIBBALDIA PROCUMBENS* L. Rosaceae.

Plants of a densely tufted procumbent or creeping herbaceous perennial, native to the Arctic regions. The trifoliate leaves 2 to 4 inches long have oblanceolate leaflets, three to five toothed at the apex, and the small yellow flowers are borne on axillary peduncles as long as the leaves.

95432. *ROMANZOFFIA SITCHENSIS* Bong.
Hydrophyllaceae.

Plants of a low perennial herb, native to Alaska, with cordate-reniform crenately 7 to 11 lobed radical leaves and white flowers in racemes on stems 2 to 6 inches high.

95433. *RHODODENDRON CAMTSCHATICUM*
Pall. Ericaceae.

Seeds of a low-growing, more or less deciduous undershrub, usually about 6 inches high, native to Alaska. The spatulate-obovate leaves are 1 to 2 inches long, and the wheel-shaped rose-purple flowers, 1 inch across, are borne singly or in pairs at the ends of the branches.

95434. *SALIX* sp. Salicaceae. Willow.
Plants.

95435. *SALIX SCOLERIANA* Barratt.
Salicaceae. Willow.

Plants of a large bush or tree up to 30 feet high, native to northwestern North America. The elliptic to obovate leaves have crenate-serrate margins and are white or rusty tomentose and reticulate beneath.

95436. *TOPIELDIA COCCINEA* Richards.
Melanthiaceae.

Plants of a bulbous perennial with radical linear-lanceolate leaves and small reddish flowers in a compact terminal cluster. Native to the Arctic region of northwestern North America.

95437. *VACCINIUM VITIS-IDAEA* L. Vacciniaceae.
Cowberry.

Plants of a small bush, seldom more than 7 or 8 inches high, which grows wild in the northern regions of Europe,

95417 to 95443—Continued.

Asia, and North America. The leaves are evergreen, and the blossoms are white or pink. The deep-red berries have a tart sour taste and are a reasonable substitute for cranberries.

For previous introduction see 66134.

95438. *VIOLA* sp. Violaceae. Violet.

Plants and seeds.

95439. (Undetermined.)

Plants.

95440. (Undetermined.)

Plants.

95441. *CRYPTOGRAMMA ACROSTICHOIDES* R.
Br. Polypodiaceae. American rockbrake.

Plants of a small alpine fern, native to northern North America. The stalks are 2 to 6 inches high, and the sterile leaves are greenish, two to three pinnate, the segments being oblong to ovate and incised on the margin. The fertile leaves are similar but are straw color, and the segments are linear.

95442. (Undetermined.)

Plants.

95443. *LUETKEA PECTINATA* (Pursh)
Kuntze. Rosaceae.

Plants of a low matted creeping shrub with stoloniferous branches, native to northwestern North America. The small alternate leaves are three lobed with each lobe three cleft, and the erect flowering branches, 2 to 6 inches high, bear upright racemes of small white flowers.

95444. *AMYGDALUS NANA* L. Amygdalaceae.
Russian almond.

From Brooks, Alberta, Canada. Seeds collected by Knowles A. Ryerson, Bureau of Plant Industry. Received October 25, 1928. Numbered in December, 1931.

An almond introduced for trial in the Great Plains region. A bush about 5 feet high, native to Russia and western Asia, with thick stiff sharply toothed leaves and solitary pinkish flowers. The small hard hairy fruit contains a large pit of bitter flavor. This almond is probably hardy throughout the northern United States.

For previous introduction see 67906.

95445 to 95450.

From China. Seeds collected by the Forrest Expedition, 1930-32, to southwestern China and presented by Maj. Lionel de Rothschild, London, England. Received December 14, 1931.

95445. *BENZOIN* sp. Lauraceae.

No. 29906.

95446. *MECONOPSIS INTEGRIFOLIA*
(Maxim.) Franch. Papaveraceae.
Yellow Chinese-poppy.

Men's Field No. 381.

95447. *PODOPHYLLUM* sp. Berberidaceae.
Mayapple.

No. 30037.

95448. *STYRAX* sp. Styracaceae.
Snowbell.

No. 29552.

95449. *THEA* sp. Theaceae.

95445 to 95450—Continued.

95450. *BENZOIN* sp. Lauraceae.No. 29980. Chinese name *Shiang Chang Shu*.

95451 to 95453.

From Seattle, Wash. Scions from Volunteer Park, presented by J. Umlauff, head gardener. Received December 14, 1931.

95451 and 95452. *PRUNUS SERRULATA* Lindl. Amygdalaceae. Oriental cherry.95451. No. 8. A wide-spreading tree about 15 feet high, with a rather flat crown and large double-white flowers tinged with pink below and at the margins. The pale straw-yellow young foliage and leafy carpels place this variety very close to *Shogetsu*, with which it may prove identical.95452. No. 18. A slender tree about 10 feet high, with dark gray-brown bark and green or slightly brownish young foliage. From the deep-pink globose-truncate buds protrude two leafy carpels. The double flowers, with about 40 petals, are clear pink, $1\frac{3}{4}$ inches across, with a number of tufted petaloids partly obscuring the center of the flower. The flowers are in clusters of four to seven, with the clusters often in more or less globular masses. This variety is not yet identified and may be a new form.95453. *PRUNUS SUBHIRTELLA* Miquel. Amygdalaceae. Higan cherry.

A pendulous variety with double flowers up to three-fourths inch across, pale pink in the center, deeper pink toward the margins and below; in clusters of five to seven. The tree is reported not to be autumn blooming.

95454 to 95499.

From England. Seeds purchased from W. E. Th Ingwersen (Ltd.), Birch Farm Hardy Plant Nursery, Sharpthorne, East Grimstead, Sussex. Received December 14, 1931.

95454 to 95458. *ALLIUM* spp. Liliaceae. Onion.95454. *ALLIUM CYANEUM* Regel.

A rather dwarf plant, less than a foot high, with small heads of pendulous pale blue flowers. Native to north-east China.

Variety *macrostemon*.

For previous introduction see 91274.

95455. *ALLIUM NARCISSIFLORUM* Vill.

An onion, native to Italy, about 9 inches high, with large rose-colored flowers in nodding heads.

For previous introduction see 82389.

95456. *ALLIUM NEVII* S. Wats.

A bulbous perennial, native to north-western America, with a globose white or reddish bulb having transverse reticulations. The narrowly linear leaves are 6 to 10 inches long, and the light-rose flowers are borne on a scape somewhat longer than the leaves.

95457. *ALLIUM SCHUBERTHII* Zucc.

A large bulbous plant, native to Asia Minor and Persia, with broadly strap-

95454 to 95499—Continued.

shaped leaves and rose-colored flowers in huge subglobose heads which are at times a foot in diameter.

For previous introduction see 82393.

95458. *ALLIUM* sp.

Originally from Portugal.

95459 to 95466. *ANTHEMIS* spp. Asteraceae. Camomile.95459. *ANTHEMIS CARPATICA* Willd. (*A. styriaca* Vest).

An alpine perennial from central Europe which forms a tuft of short leafy stems bearing solitary daisylike flowers with white rays and yellow disks.

95460. *ANTHEMIS CUPANIANA* Hort.

A name for which a place of publication and a description have not been found.

95461. *ANTHEMIS HAUSKNECHTII* Boiss. and Reut.

An annual daisylike plant with erect hairy stems 6 inches or more high, ovate-oblong tripinnatisect leaves, and flowers with white rays and violet centers. Native to Asia Minor.

95462. *ANTHEMIS KITAIBELII* Spreng.A perennial alpine with short hairy stems and narrow laciniate bipinnate leaves. The flower heads, with white rays and yellow disks, are smaller than those of *A. carpatica*. Native to the mountains of southeastern Europe.95463. *ANTHEMIS RIGESCENS* Willd.

An alpine perennial camomile from Asia Minor with simple or branched stems and broadly ovate-oblong laciniate-pinnatisect leaves. The flower heads with white rays are borne on long peduncles.

95464. *ANTHEMIS SANCTI-JOHNANNIS* Stoy., Steff., and Turrill.

An ornamental herbaceous perennial, 3 to 4 feet high, native to the mountain slopes of Bulgaria at an altitude of 4,000 feet. The woolly stems, with few branches, have two to three times partly pinnate basal leaves, 5 to 7 inches long, the tips of which are armed with hard white acuminate points. The stem leaves are similar but gradually smaller, leaving bare stems 3 to 7 inches below the flower heads, which are solitary, 1 to 2 inches broad, and the ray flowers and disk are an intense orange, making a brilliant showing in contrast to the woolly leaves.

For previous introduction see 77319.

95465. *ANTHEMIS CARPATICA* Willd. (*A. styriaca* Vest).

For previous introduction and description see 95459.

95466. *ANTHEMIS* sp.

Seeds collected in the Balkans.

95467 to 95473. *ARMERIA* spp. Plumbaginaceae. Thrift.95467. *ARMERIA ALLOIDES* Boiss.

An ornamental herbaceous perennial, native to the mountains of central Europe, with linear leaves up to 4 inches long and white flower heads.

95454 to 95499—Continued.

95468. *ARMERIA CALABRICA* Hort.

A name for which a place of publication and a description have not been found.

95469. *ARMERIA CANTABRICA* Boiss. and Reut.

A woody caespitose plant with a thick rhizome and lanceolate or linear, rather fleshy leaves 1 to 3 inches long. The rosy flowers are in small heads on a scape 3 to 15 inches high. Native to Spain.

95470. *ARMERIA CARIENSIS RUMELICA* Boiss.

A caespitose herbaceous perennial with a rosette of narrow leaves and a compact head of rosy flowers on a slender scape. Native to Macedonia and Greece.

95471. *ARMERIA CORSICA* Hort.

A name for which a place of publication and a description have not been found.

95472. *STATICE CHILENSIS MAGELLANICA* (Bois.) Macloskie.

A caespitose perennial herb from the Straits of Magellan with linear rigid sharp-pointed puberulous leaves and numerous purplish flower heads.

95473. *ARMERIA PUBENS HIRSUTA* Hort.

A name for which a place of publication and a description have not been found.

95474. *STATICE PUNGENS* Brot. Plumbaginaceae. Thrift.

A woody plant about 6 inches high with rigid lanceolate, somewhat glaucous leaves 2 to 3 inches long, and rosy flowers in small heads on simple scapes. Native to Spain.

95475. *STATICE* sp. Plumbaginaceae. Thrift.

A mixed sample collected on Mount Dormitor.

95476. *STATICE* sp. Plumbaginaceae. Thrift.

A mixed sample collected in the Balkans.

95477. *BULBINELLA HOOKERI* (Colenso) Cheeseman. Liliaceae.

A New Zealand herbaceous perennial, related to the asphodels, varying in size from 2 to 3 feet. The numerous glaucous-green leaves are linear, and the loose racemes of bright-yellow flowers are on slender scapes up to 10 inches long.

For previous introduction see 91389.

95478 to 95482. *CHRYSANTHEMUM* spp. Asteraceae.95478. *CHRYSANTHEMUM CORYMBOSUM* L.

A robust perennial 1 to 4 feet high, with leaves 6 inches long and 3 inches wide in the middle, tapering both ways and deeply cut into segments which alternate along the midrib. The white flowers are borne in dense fat-topped clusters. Native to the Caucasus in Europe and to North Africa.

For previous introduction see 40544.

95454 to 95499—Continued.

95479. *CHRYSANTHEMUM PULVERULENTUM* Lag. (*Pyrethrum hispanicum* Willk.). Asteraceae.

A herbaceous perennial with a woody base, deeply pinnatifid lower leaves, and linear stem leaves. The plant is very variable in size and habit; the flowers also vary in color from white to yellow, or even purplish yellow. Native to central Spain.

95480. *CHRYSANTHEMUM MAWII* Hook. f.

A short woody perennial, native to Morocco, with stems 1 to 2 feet high. The small triangular-oblong pinnatifid leaves are woolly gray, and the long-stalked flower heads, 1 to 2 inches across, have red-purple disks and 3-toothed white rays which are reddish on the back.

95481. *CHRYSANTHEMUM MYCONIS* L.

A somewhat weedy plant resembling the ordinary field daisy except that the yellow flowers are smaller. They are freely borne on branching stems for over two months.

For previous introduction see 40641.

95482. *CHRYSANTHEMUM ZAWADSKII* Herbich.

A tufted herbaceous perennial, native to Galicia, said to have rosetted flowers appearing throughout the summer.

95483 to 95485. *ERICA* spp. Ericaceae. Heath.95483. *ERICA ARBOREA ALPINA* Dieck.

An evergreen, bushy heath, somewhat harder to cold than the type, native to the mountainous regions of Cueva, Spain. The fragrant dull-white flowers are borne in stiff pyramidal clusters, but the chief beauty of the plant lies in the rich, cheerful, green color of the foliage, which does not change during the winter.

For previous introduction see 80328.

95484. *ERICA CINEREA* L. Twisted heath.

A much-branched and twisted shrub 1 to 2 feet high, with narrow leaves in threes and showy clusters of rose-violet flowers. It is native to Europe.

Variety *atrosanguinea*.

For previous introduction see 79156.

95485. *ERICA UMBELLATA* L.

A shrub 5 to 10 feet high with small ternate obtuse 3-angled leaves one-third inch long and small rosy flowers in small umbels at the ends of the branches. Native to Spain.

95486. *ERODIUM GRUNERI* Hort. Geraniaceae. Heronbill.

A name for which a place of publication and a description have not been found.

95487. *ERODIUM LANDAUERI* Hort. Geraniaceae. Heronbill.

A name for which a place of publication and a description have not been found.

95488. *HEDYSARUM MULTIJUGUM* Maxim. Fabaceae.

A straggling herbaceous perennial of angular growth, native to Mongolia.

95454 to 95499—Continued.

The stems are 2 to 5 feet high, the compound leaves are made up of 6 to 12 pairs of small oval gray-green leaflets, and the violet flowers with yellow blotches are borne in racemes 18 inches long and appear throughout the summer.

95489. HYACINTHUS AMETHYSTINUS L. Liliaceae. **Hyacinth.**

A slender, graceful Spanish hyacinth with short racemes of light-blue flowers up to 6 inches high.

For previous introduction see 91282.

95490 to 95492. LILIUM spp. Liliaceae. **Lily.**

95490. LILIUM HELDREICHII Freyn.

A lily, native to Greece, with stems 2 to 3 feet high, bearing narrow scattered leaves and one to four orange-red flowers, tinged with yellow outside, which appear early in July.

95491. LILIUM SUTCHUENENSE Franch.

A lily from Szechwan, western China, with a stem 3 to 5 feet high and spreading underground stems. The thickly scattered leaves are linear and deep green, and the pendulous flowers, up to 20 in number, have reflexed orange-red segments spotted with purplish black and red anthers.

For previous introduction see 65720.

95492. LILIUM sp.

95493. MUSCARI sp. Liliaceae. **Grape-hyacinth.**

Originally from Portugal.

95494. RANUNCULUS GRAMINEUS L. Ranunculaceae. **Buttercup.**

A smooth herbaceous perennial with rosettes of linear to lanceolate leaves and bright-yellow flowers on stalks 6 to 12 inches high. It is native to Europe.

For previous introduction see 91445.

95495. SCABIOSA GRAMINIFOLIA L. Dipsacaceae.

A low herbaceous perennial, somewhat woody at the base, native to southern Europe. The stems that rise about 1 foot above the basal rosette bear linear silvery leaves, and the typical scabious flowers are pale lavender.

95496. SCABIOSA LUCIDA Vill. Dipsacaceae.

A perennial herb with shining-green deeply divided leaves in basal rosettes and terminal heads of blue-purple flowers. Native to alpine meadows in Spain.

95497 to 95499. STATICE spp. Plumbaginaceae. **Thrift.**

95497. STATICE FASCICULATA Vent.

A glabrous perennial, subshrubby at the base, with yuccalike leaves and dense heads of pale-pink armerialike flowers. It is native to southwestern Europe.

95498. STATICE JUNCEA (Girard) Hubbard.

A low herbaceous perennial with a rosette of linear leaves and small heads of pink armerialike flowers. Native to Europe.

95454 to 95499—Continued.

95499. STATICE WELWITSCHII (Boiss.) Hubbard.

A bushy perennial with a rosette of rigid acuminate linear leaves and small flowers in a hemispherical head of armerialike flowers. Native to the coast of southern Spain.

95500. CARPOTROCHE BRASILIENSIS (Raddi) Endl. Flacourtiaceae.

Sapucainha.

From Brazil. Seeds presented by Prof. P. H. Rolfs, Viçosa, Minas Geraes. Received December 15, 1931.

A tropical tree 30 to 50 feet high, with oblong leaves about 4 inches long and few-flowered racemes of small white flowers. The fruits are about 4 inches in diameter. A sirup said to cure leprosy and an ointment used for skin affections are prepared from the seeds.

For previous introduction see 88314.

95501 and 95502.

From China. Seeds presented by Raymond T. Meyer, Oberlin Shansi Memorial Schools, Taiku, Shansi. Received December 15, 1931.

95501. AMYGDALUS PERSICA L. Amygdalaceae. **Peach.**

A locally grown hardy peach.

95502. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae. **Common wheat.**

An early-maturing spring wheat.

95503. LARIX LYALLII Parl. Pinaceae. **Alpine larch.**

From Washington. Seeds presented by Thornton Mungler, director, Pacific Northwest Forest Experiment Station, Portland, Oreg. Received December 16, 1931.

Collected near Lake Caroline, Wenatchee National Forest, Leavenworth, Wash., a region which has 30 inches of rainfall during the year and a frost-free period of 30 days. A deciduous tree up to 75 feet high, with stout brown-tomentose branchlets and 4-angled leaves 1 to 2 inches long.

95504 to 95515.

From China. Seeds collected by the Forrest Expedition, 1930-32, to southwestern China and presented by Maj. Lionel de Rothschild, London, England. Received December 17, 1931.

95504. ACER sp. Aceraceae. **Maple.**

95505. BENZOIN sp. Lauraceae.

The young foliage is silvery.

95506. CORNUS sp. Cornaceae. **Dogwood.**
No. 30000.

95507. DECAISNEA FARGESII Franch. Lardiabalaceae.

A handsome shrub up to 15 feet high, with large pinnate leaves 3 feet long, greenish flowers in long pendulous racemes, and deep-blue fruits 3 to 4 inches long. Native to western China.

For previous introduction see 77828.

95508. GORDONIA sp. Theaceae.

A tree 40 to 60 feet high.

95504 to 95515—Continued.

95509. *GORDONIA CHRYSANDRA* Hort.
Theaceae.

No. 15559. A name for which a place of publication and a description have not been found.

95510. *PRUNUS* sp. Amygdalaceae.

A wild apricot.

95511. *PRUNUS* sp. Amygdalaceae.

Men's No. 520. A wild plum with crimson or purple edible fruits.

95512. *LAUROCERASUS* sp. Amygdalaceae.

A tree 40 feet high with large black fruits.

95513. *STYRAX LANGKONGENSIS* W. W. Smith. Styracaceae. Snowbell.

Men's No. 570. An ornamental shrub 1 to 2 feet tall, which grows in arid regions at 7,500 feet altitude. The flowers are large white and drooping, with rich red-brown calyxes.

For previous introduction see 56018.

95514. *THEA PITARDII* (C. Stuart) Rehder (*T. speciosa* Pitard). Theaceae.

For previous introduction and description see 95396.

95515. *THEA* sp. Theaceae.

No. 29960. A form with white flowers.

95516. *EUCALYPTUS ALGERIENSIS* Traub. Myrtaceae.

From Algeria. Seeds presented by Dr. H. Maire, University of Algiers. Received December 18, 1931.

A hybrid between *Eucalyptus rostrata* and *E. rudis* which has become naturalized in North Africa and now covers considerable areas on the hills in Algeria. It differs from *E. rudis* by its smooth trunk and its small flowers with the hemispherical operculum not beaked; and from *E. rostrata* by its buds, which are white like those of *E. rudis*. *E. rudis* flowers in the month of December, *E. algeriensis* flowers in the spring, while *E. rostrata* flowers in July and August.

For previous introduction see 64176.

95517. *ORYZA LATIFOLIA* Desv. Poaceae. Rice.

From Cuba. Seeds purchased from Juan T. Roig, Pinar del Rio. Received December 18, 1931.

For previous introduction and description see 95364.

95518 and 95519. *TIGRIDIA PAVONIA* (L. f.) Ker. Iridaceae.

Common tigerflower.

From Ireland. Bulbs purchased from T. Smith, Daisy Hill Nursery, Newry. Received December 19, 1931.

A tender bulbous plant over 2 feet tall, with several sword-shaped strongly plicate long-pointed leaves and very large showy flowers, 5 to 6 inches across, produced in succession through the warm season.

95518. *Alba immaculata*. A spotless white variety, a sport from variety *alba*.

95519. *Canariensis*. A pale-yellow flowered form.

95520 to 95533. *SIDALCEA* spp. Malvaceae.

From the Netherlands. Plants purchased from B. Ruys (Ltd.), Royal Moerbeim Nurseries, Dedemsvaart. Received December 21, 1931.

95520. *SIDALCEA CANDIDA* A. Gray.
White prairie-mallow.

An erect herbaceous perennial, 2 to 3 feet high, native to the Rocky Mountains. The radical leaves are broadly cordate with crenate margins and are 4 to 6 inches across, while the stem leaves are 5-parted to 7-parted, with the divisions narrow and notched. The white flowers, more than an inch across, are borne in a spike-like raceme.

95521 to 95532. *SIDALCEA HYBRIDA* Hort.
Prairie-mallow.

The *sidalceas* are hardy perennials with stipular palmately cleft leaves. The showy pink, white, or purple flowers are in terminal racemes or spikes.

95521. *Bertram Park*. A rich rose-pink novelty, one of the finest.

95522. *Crimson King*. One of the darkest in color; the brown-crimson flowers, though not large, are densely placed on the elegant spikes.

95523. *Interlaken*. A form with fine silvery pink flowers.

95524. *Monarch*. A late-flowering novelty whose large wide open semi-double flowers are rich self rosy crimson and borne on loosely arranged spikes.

95525. *Mr. Lindbergh*. An excellent novelty with dark rubin-red flowers, the best of this color class.

95526. *Page Roberts*. A form with soft pink flowers.

95527. *Rose Beauty*. Earlier, dwarfier, and deeper in color than *Rose Queen*.

95528. *Rose Queen*. Dark-pink flowers.

95529. *Rosy Gem*. Very free flowering spikes of soft pink flowers.

95530. *Ruby*. A new form with rich ruby-red flowers.

95531. *Scarlet Beauty*. A very fine free-flowering variety whose flowers vary from deep amaranth pink to red.

95532. *Sussex Beauty*. A very free-flowering seedling from *Rosy Gem*, with clear satiny pink flowers.

95533. *SIDALCEA MALVAEFLORA* (DC.) A. Gray.
Checkerbloom.

A tall herbaceous perennial, native to California, with stems up to 6 feet high. The lower leaves are incised-crenate and the upper are five cleft with narrow, nearly entire segments. When fully expanded the purple flowers of the wild form are about 2 inches across.

Variety *rubra*. A form with rose-red flowers.

95534 and 95535.

From Washington. Bud wood presented by G. E. Kastengren, superintendent, Sanborn Map Co., Seattle. Received December 21, 1931.

95534 and 95535—Continued.

95534. MALUS SYLVESTRIS Mill. (*Pyrus malus* L.). Malaceae. **Apple.**

A seedling apple growing on land that was logged off more than 30 years ago. The apples keep until the following April without special care.

95535. PRUNUS ARMENIACA L. Amygdalaceae. **Apricot.**

A large freestone apricot of beautiful color and fine fragrance and flavor.

95536. CENCHRUS BIFLORUS Roxb. Poaceae. **Grass.**

From Australia. Seeds presented by F. J. S. Wise, agricultural adviser, Broome, Western Australia. Received December 22, 1931.

A perennial grass native to southern Asia and Africa. The simple stems are 6 to 24 inches high, and the linear-lanceolate leaves are 3 to 10 inches long. It is considered one of the most nutritious grasses and excellent both for grazing and for hay. In Florida and along the Gulf Coast it succeeds well and tends to spread naturally, but the growth is sufficient only for grazing, as on sandy soil the grass grows only 6 to 12 inches high.

For previous introduction see 49514.

95537 to 95539. CITRUS spp. Rutaceae.

From the West Indies. Scions presented by Edmund H. Twilight, specialist in fruits, Department of Agriculture and Commerce, Rio Piedras, Puerto Rico. Received December 23, 1931.

95537. CITRUS sp.

Rico No. 1, Mayaguez. A smooth deep-yellow slightly obovoid very juicy seedless orange with deep-yellow, very tender flesh of excellent quality.

95538. CITRUS sp.

Rico No. 2, San Sebastian. A smooth deep-yellow navel orange; the deep-yellow flesh is solid, tender, with a fine distinctive flavor.

95539. CITRUS sp.

Rico No. 6, Sabana Grande. A smooth deep-yellow orange with a tendency to flatness like a Marsh grapefruit, also a few seeds. The deep-yellow acid flesh is tender, of exceptionally fine flavor, and very juicy (3½ oranges produced over a pint of juice).

95540 to 95543.

From Japan. Seeds purchased from the Chugai Shokubutsu Yen, Yamamoto, Kawabegun, near Kobe. Received December 28, 1931.

95540. ACER CARPINIFOLIUM Sieb. and Zucc. Aceraceae. **Hornbeam maple.**

A tree up to 30 feet high with oblong sharp-pointed doubly serrate leaves 3 to 5 inches long, short racemes of greenish flowers, and glabrous fruits about an inch long. The bright-green hornbeamlike leaves turn bright brownish yellow in autumn. Native to Japan.

For previous introduction see 91957.

95541. ACER NIKOENSE (Miquel) Maxim. Aceraceae. **Maple.**

A tree up to 50 feet high, native to Japan and central China, with attractive foliage somewhat like the boxelder, which becomes brilliant red or purple in the autumn.

For previous introduction see 91242.

95540 to 95543—Continued.

95542. RHODODENDRON RETICULATUM D. Don (*Azalea rhombica* Hort.). Ericaceae.

A much-branched deciduous Japanese shrub up to 25 feet high belonging to the section Sciodorhodion. The branchlets are yellow brown, the reticulate broadly ovate leaves, 2 to 3 inches long, are in clusters of two or three, and the slightly 2-lipped rotate-campanulate flowers appearing before the leaves are rose purple to magenta. There are two forms—the ordinary form with 10 stamens, often called *R. rhombicum*, and a form with 5 stamens called *R. dilatatum*.

For previous introduction see 91246.

95543. IRIS ROSSII Baker. Iridaceae.

A beardless iris with a creeping rhizome, linear green grasslike leaves, 4 to 6 inches long, and a very short stem with a single lilac flower 1 inch across. It is native to Chosen and northern China.

For previous introduction see 91257.

95544. PHLEUM PRATENSE L. Poaceae. **Timothy.**

From Norway. Seeds presented by Haakon Foss, Statens forsoksstasjon for fjellbyadene, Valdres. Received December 29, 1931.

Seeds collected from individual plants for a department specialist.

95545 to 95547.

From Japan. Seeds purchased from the Chugai Shokubutsu Yen, Yamamoto, Kawabegun, near Kobe. Received December 30, 1931.

95545. ACER BARBINERVE Maxim. Aceraceae. **Maple.**

A shrubby maple, native to Manchuria, with coarsely toothed 5-lobed leaves.

For previous introduction see 90651.

95546. ACER CISSIFOLIUM (Sieb. and Zucc.) Koch. Aceraceae. **Maple.**

A Japanese maple of compact, rounded habit, becoming 30 feet or more high, with leaves composed of three leaflets up to 4 inches long. The minute flowers are produced in May with the leaves, and the keys, about 1 inch long, occur in long racemes. In autumn the foliage turns red and yellow.

For previous introduction see 91240.

95547. DISANTHUS CERCIDIFOLIA Maxim. Hamamelidaceae.

A handsome shrub, native to Japan, with cercislike leaves which turn to crimson red suffused with orange in the autumn. The dark-purple flowers, resembling those of witch-hazel and about three-fourths inch across, appear in October.

95548. CITRULLUS VULGARIS Schrad. Cucurbitaceae. **Watermelon.**

From India. Seeds presented by D. C. Seth & Sons, Anderson & Templey Orchards and Nurseries, Sargodha, Arifwala, Punjab. Received December 28, 1931.

Hindwana melon.

95549. ANTIGONON MACROCARPUM Britt. and Small. Polygonaceae.

From Cuba. Seeds presented by Mrs. F. S. Earle, Herradura. Received December 28, 1931.

A herbaceous climber, often 15 feet or more long, with broadly ovate or roundish rather thick leaves deeply cordate at the base. The small light-pink flowers are in elongated racemes. Native to St. Thomas, British West Indies.

95550 and 95551.

From Morocco. Seeds presented by H. Brayard, Directeur de la Station Expérimentale, Marrakech. Received December 28, 1931.

95550. AMYGDALUS PERSICA L. Amygdalaceae.
Peach.

A wild peach.

95551. PRUNUS ARMENIACA L. Amygdalaceae.
Apricot.

A wild apricot.

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Vitex sp., 94785.

 Watermelon. See *Citrullus vulgaris*.
 Wheat, common. See *Triticum aestivum*.
 durum. See *T. durum*.
 hybrid, Persian-durum. See *T. persicum* × *durum*.
 Persian. See *T. persicum*.
 poulard. See *T. turgidum*.
 Wheat-rye hybrid. See *T. aestivum* × *Secale cereale*.
 Willow. See *Salix* spp.

Xylomelum angustifolium, 95344.

 Yerba maté. See *Ilex paraguariensis*.

Zea mays, 94786.