

APPENDIX 1 SPECIES LISTED BY KENT (1992) BUT NOT INDICATED AS BRITISH NATIVES IN THE FLORA EUROPAEA DATABASE

Species are listed here in six categories as follows:-

- 1 European natives, warmer half
- 2 European natives, colder half
- 3 Exotics in Flora Europaea, warmer half
- 4 Exotics in Flora Europaea, colder half
- 5 Exotics, not naturalized in any European country
- 6 Exotics, not listed in *Flora Europaea*.

For those species recorded as native or naturalized in *Flora Europaea*, the calculation of temperature and precipitation indices was as follows.

Tjan = average of the following four:-

minimum over countries (maximum Jan temp)
maximum over countries (minimum Jan temp)
median over countries (maximum Jan temp)
median over countries (minimum Jan temp).

Tjul = average of the following four:-

minimum over countries (maximum Jul temp)
maximum over countries (minimum Jul temp)
median over countries (maximum Jul temp)
median over countries (minimum Jul temp).

Prec = average of the following four:-

minimum over countries (maximum precip)
maximum over countries (minimum precip)
median over countries (maximum precip)
median over countries (minimum precip).

The temperature indicator value is then calculated as

$$TIV = 0.5 * ((Tjul - T0)^2) / (Tjul - Tjan)$$

where T0 is a base temperature, here set to 5°C. To a rough approximation, TIV should be an indication of growing degree days with the base T0, in that

$$TIV * 365 \approx GDD.$$

Species native or naturalized in Europe are classified as warm ($TIV \geq 5.4^\circ\text{C}$) or cold ($TIV \leq 5.3^\circ\text{C}$). European natives are given their temperature indication on the basis of native or possibly native range. TIV for exotics is calculated on the basis of countries where the species is naturalized.

Of the other columns listed in the Appendix, N is the total number of countries in which the species is native or naturalized, NI is the number in which it is naturalized, NCODE is a code number from the *Flora Europaea* database, and NAME is the binomial for the species, abbreviated to 23 letters.

It should be appreciated that the lists given here are not definitive. In particular, some names from Kent's list were not recognized as species present in *Flora Europaea*. Harmonization

of the *Flora Europaea* database with the Kent list is proceeding but is still not fully complete.

Kent list, European natives (warmer half; 216 spp.)

TIV	TJAN	PREC	N	NI	NCODE	NAME (FIRST 23 LETTERS)
5.8	-5.3	875.	17	4	25800	Abutilon theophrasti
7.9	.9	839.	10	2	843	Acanthus mollis
6.5	-2.5	1036.	6	0	845	Acanthus spinosus
7.6	-.7	894.	9	0	5962	Achillea ligusta
5.5	-8.1	692.	3	0	4695	Acroptilon repens
6.5	-2.2	982.	16	1	27329	Adonis annua
7.8	-.2	971.	13	0	3652	Aetheorhiza bulbosa
6.1	-1.4	1069.	10	0	41393	Agrostis castellana
7.9	-.1	894.	11	0	38385	Allium neapolitanum
7.0	-2.8	971.	15	1	39347	Allium nigrum
8.2	.7	730.	4	0	38831	Allium pendulinum
7.0	-.2	982.	14	1	39371	Allium roseum
7.7	.9	764.	11	1	38746	Allium subhirsutum
7.3	1.5	903.	11	4	39242	Allium triquetrum
6.0	-.1	1134.	5	2	11692	Alnus cordata
6.4	-3.9	853.	23	1	25778	Althaea hirsuta
7.7	.4	907.	14	0	1508	Ammi majus
6.4	-4.3	855.	23	4	12594	Anchusa azurea
7.1	-.5	751.	16	4	42153	Anisantha diandra
6.6	-.9	892.	18	2	40949	Anisantha madritensis
7.0	-1.9	755.	16	1	42165	Anisantha rigida
7.7	.8	630.	1	0	3851	Anthemis punctata
7.7	.8	630.	1	0	3851	Anthemis punctata subsp
6.2	-2.0	841.	18	7	40551	Anthoxanthum aristatum
5.8	-3.2	972.	21	16	33261	Antirrhinum majus
6.5	-3.2	971.	13	1	12656	Arabis collina
6.9	.8	922.	7	3	15686	Arenaria balearica
7.2	-.7	1138.	3	0	16824	Arenaria montana
6.8	-3.2	971.	13	0	2424	Aristolochia rotunda
5.7	-4.7	1061.	10	0	39161	Asphodelus albus
5.7	-4.4	1098.	2	0	20863	Astragalus odoratus
8.3	1.0	796.	10	0	17763	Atriplex halimus
5.7	-1.9	896.	8	3	14284	Aubrieta deltoidea
6.7	-2.6	855.	19	3	40564	Avena barbata
6.1	-1.2	1004.	14	7	13787	Barbarea verna
5.5	-5.3	768.	9	2	17818	Beta trigyna
5.8	-4.5	833.	26	13	12546	Borago officinalis
7.9	.6	776.	3	0	12547	Borago pygmaea
6.9	-1.1	874.	17	2	41668	Briza maxima
7.3	.3	907.	16	1	41669	Briza minor
6.8	-1.3	891.	10	2	1879	Bupleurum fruticosum
6.7	-3.1	845.	22	2	3677	Calendula arvensis
6.0	-3.0	961.	17	4	18953	Calystegia silvatica
5.6	-6.3	870.	19	18	14695	Cannabis sativa
6.1	-3.2	1031.	14	3	13720	Capsella rubella
7.1	-3.0	832.	15	0	2822	Carduus pycnocephalus
5.6	-4.4	885.	27	15	22480	Castanea sativa
8.7	.7	893.	6	0	2954	Centaurea aspera
6.0	-3.8	857.	24	5	2960	Centaurea calcitrapa
5.9	-4.3	858.	23	7	3444	Centaurea solstitialis
7.4	-.6	754.	13	0	34893	Centranthus calcitrapae
6.0	-1.4	972.	19	8	34865	Centranthus ruber
7.1	-.6	892.	5	0	33206	Chaenorhinum origanifol

5.6	-5.8	853.	27	2	17881	Chenopodium opulifolium
6.8	-2.8	825.	17	4	27199	Clematis flammula
5.5	-5.2	1000.	11	5	27206	Clematis viticella
5.8	-4.2	1008.	18	2	21799	Colutea arborescens
6.0	-2.8	875.	19	8	27212	Consolida ajacis
8.9	1.7	1083.	2	0	27084	Consolida ajacis
7.3	-2.1	843.	16	0	22332	Coronilla scorpioides
7.2	.3	992.	13	1	21808	Coronilla valentina
6.6	-3.3	923.	10	1	29747	Crataegus laciniata
6.2	-1.8	1003.	19	2	3710	Crepis vesicaria
6.0	-5.7	885.	7	1	36411	Crocus chrysanthus
6.3	-5.2	741.	6	0	36422	Crocus flavus
6.9	-4.1	805.	4	0	36477	Crocus pulchellus
6.8	-1.3	1041.	4	0	36499	Crocus sieberi
6.8	-5.6	616.	1	0	36508	Crocus speciosus
7.6	-4.0	686.	3	0	28849	Cyclamen coum
6.1	-3.2	1026.	11	1	29065	Cyclamen hederifolium
5.5	-1.6	859.	1	0	33659	Cymbalaria hepaticifoli
6.0	-4.1	853.	27	1	41221	Cynodon dactylon
6.6	-3.2	860.	23	4	41222	Cynosurus echinatus
8.9	1.7	1083.	2	0	21704	Cytisus multiflorus
7.2	-.7	1138.	3	1	19707	Cytisus striatus
5.7	-3.5	925.	23	4	13634	Diplotaxis muralis
7.6	-1.1	901.	14	0	4066	Dittrichia viscosa
5.5	-1.5	936.	6	2	4344	Doronicum plantagineum
7.4	-1.5	884.	11	3	35889	Dracunculus vulgaris
6.4	-2.9	842.	22	4	18464	Ecballium elaterium
5.9	-5.9	933.	6	0	5979	Echinops bannaticus
8.9	1.7	1083.	2	0	12476	Echium rosulatum
5.8	-5.3	857.	25	3	41786	Eragrostis minor
6.0	-.3	1153.	4	1	19553	Erica lusitanica
6.8	.4	948.	5	1	19486	Erica terminalis
5.4	-3.1	1030.	9	2	33899	Erinus alpinus
5.5	-6.3	1037.	12	0	18405	Euonymus latifolius
7.7	-.2	982.	12	0	20265	Euphorbia characias
6.4	-2.2	907.	20	8	25300	Ficus carica
6.7	-1.2	971.	19	0	10826	Filago gallica
5.6	-4.6	839.	29	13	1281	Foeniculum vulgare
5.7	-7.9	710.	3	0	35705	Galanthus plicatus
6.5	-1.3	898.	18	3	41363	Gaudinia fragilis
8.4	2.0	752.	2	0	21308	Genista aetnensis
7.2	-2.0	1004.	10	0	36560	Gladiolus communis
8.6	-1.9	705.	1	0	26978	Helleborus orientalis
5.7	-1.3	1052.	8	1	36584	Hermodactylus tuberosus
6.1	-4.3	860.	23	1	17001	Herniaria hirsuta
6.2	-1.9	980.	21	8	14011	Hirschfeldia incana
5.4	-1.5	1186.	7	5	38119	Hyacinthoides hispanica
5.6	-3.6	976.	10	8	23310	Hypericum calycinum
6.3	-1.3	949.	13	6	23297	Hypericum hircinum
7.9	.0	930.	6	0	36722	Iris xiphium
6.1	-3.6	895.	21	12	23153	Juglans regia
7.2	.3	992.	13	1	36107	Juncus subulatus
7.4	-.8	829.	16	0	43717	Lagurus ovatus
6.7	-2.0	982.	7	0	22255	Lathyrus grandiflorus
5.7	-4.8	900.	23	1	21923	Lathyrus hirsutus
5.7	-4.7	864.	24	3	21002	Lathyrus latifolius
7.4	-.7	842.	15	2	25247	Laurus nobilis
8.2	.8	812.	8	0	25741	Lavatera olbia
5.8	-4.2	852.	22	2	13498	Lepidium graminifolium

5.8	-3.4	839.	23	13	14577	Lobularia maritima
6.0	-5.7	982.	15	0	17456	Lychnis coronaria
6.8	-1.0	995.	9	7	13522	Malcolmia maritima
7.5	-.6	751.	14	0	25664	Malva nicaeensis
7.4	.9	982.	14	1	25666	Malva parviflora
6.5	-1.4	979.	21	7	20556	Melilotus indicus
5.8	-3.3	844.	28	16	23840	Melissa officinalis
6.9	1.1	963.	6	3	25084	Mentha requienii
5.7	-4.7	970.	17	11	30357	Mespilus germanica
6.9	-4.1	805.	4	0	39078	Muscari armeniacum
5.4	-5.8	883.	19	2	38961	Muscari botryoides
5.7	-4.4	839.	27	4	38147	Muscari comosum
7.2	-.7	1138.	3	0	35546	Narcissus bulbocodium
6.6	-1.5	912.	8	1	35698	Narcissus papyraceus
7.7	-.2	982.	12	0	35753	Narcissus tazetta
7.4	-1.7	734.	9	0	38989	Nectaroscordum siculum
7.5	-1.4	832.	15	0	27114	Nigella damascena
6.9	-2.1	986.	12	0	21956	Ononis natrix
7.7	.1	842.	15	0	22017	Ornithopus compressus
7.4	-.7	738.	15	0	26266	Orobanche crenata
5.5	-4.0	858.	31	12	25840	Oxalis corniculata
6.1	-3.2	999.	14	2	25361	Paeonia mascula
6.0	-3.3	809.	21	13	25589	Papaver somniferum
5.7	-.5	1010.	7	4	11832	Pentaglottis sempervire
6.6	-.4	895.	14	11	11574	Petasites fragrans
5.7	-4.8	942.	22	4	15566	Petrorhagia saxifraga
7.5	-1.1	917.	12	0	43575	Phalaris aquatica
7.5	-.6	751.	14	1	42398	Phalaris minor
7.2	-1.4	998.	10	0	42882	Phalaris paradoxa
6.7	-.9	992.	11	4	24339	Phlomis fruticosa
7.0	-.6	919.	12	5	607	Pinus pinaster
5.7	-5.8	840.	25	0	27863	Plantago arenaria
7.3	-1.1	842.	17	0	42346	Polypogon viridis
5.5	-5.1	880.	27	7	32710	Populus alba
5.4	-7.3	941.	18	0	29340	Potentilla inclinata
6.0	-3.9	858.	25	1	25036	Prunella laciniata
6.2	-1.0	968.	8	5	29962	Prunus laurocerasus
7.4	1.9	1004.	4	0	29971	Prunus lusitanica
6.3	-2.1	918.	12	4	77	Pteris cretica
5.8	-3.7	1015.	11	2	31150	Pyracantha coccinea
8.9	1.7	1083.	2	0	22494	Quercus canariensis
6.5	-1.6	992.	15	3	22435	Quercus ilex
6.3	-1.9	888.	8	1	26826	Ranunculus marginatus
6.9	-1.0	843.	18	2	26837	Ranunculus muricatus
5.6	-4.3	848.	30	13	13886	Rapistrum rugosum subsp
6.2	-1.8	903.	17	5	27957	Reseda alba
5.5	-4.7	1000.	16	3	27929	Reseda phytisma
7.3	-1.9	974.	12	1	28045	Rhamnus alaternus
6.4	-.6	963.	8	4	19459	Rhododendron ponticum
5.8	-5.8	879.	23	5	30842	Rosa gallica
7.1	-1.6	901.	16	5	25038	Rosmarinus officinalis
5.7	-4.3	993.	12	4	27508	Rumex cristatus
5.7	-4.7	941.	23	2	27451	Rumex scutatus
5.7	-6.6	757.	10	0	38081	Ruscus hypoglossum
6.6	-3.7	913.	18	3	24774	Salvia sclarea
6.6	-3.2	997.	12	1	23412	Salvia viridis
7.1	-2.1	986.	10	2	9489	Santolina chamaecyparis
5.7	-4.8	1057.	10	1	16543	Saponaria ocymoides
6.3	-4.8	1015.	9	0	24782	Satureja montana

6.0	-3.5	1009.	18	2	31582	Saxifraga rotundifolia
7.2	.0	901.	16	1	19064	Scabiosa atropurpurea
5.6	-5.8	862.	22	1	38937	Scilla bifolia
6.4	-2.3	1002.	1	0	38531	Scilla messeniaca
9.2	1.7	887.	5	0	38944	Scilla peruviana
5.8	-3.3	966.	20	5	18216	Sedum dasyphyllum
5.4	-5.5	940.	15	2	18232	Sedum hispanicum
6.3	-1.3	917.	13	5	9624	Senecio cineraria
5.5	-6.3	778.	15	1	9310	Senecio doria
5.6	-4.2	983.	18	5	9306	Senecio squalidus
5.4	-5.7	829.	32	0	42743	Setaria viridis
5.8	-5.1	837.	20	5	17110	Silene armeria
6.0	-4.3	842.	24	10	9640	Silybum marianum
5.6	-4.3	837.	24	8	14646	Sisymbrium irio
5.5	-4.4	860.	29	13	13042	Sisymbrium orientale
7.0	.5	954.	17	3	1000	Smyrnium olusatum
5.8	-3.8	932.	20	4	2032	Smyrnium perfoliatum
7.0	1.1	875.	10	6	35142	Soleirolia soleirolii
7.3	-.9	832.	17	3	20623	Spartium junceum
6.6	-3.7	835.	2	1	24371	Stachys byzantina
7.7	-.9	983.	10	1	35463	Sternbergia lutea
6.5	-3.5	1026.	11	1	12211	Sympytum bulbosum
5.5	-9.1	699.	6	0	12220	Sympytum tauricum
6.8	1.3	833.	8	1	34716	Tamarix gallica
5.9	-4.3	932.	22	3	1545	Tordylium maximum
7.1	1.3	932.	6	2	14743	Trachelium caeruleum
6.3	-2.4	726.	3	1	11771	Trachystemon orientalis
5.7	-3.5	854.	23	10	9289	Tragopogon porrifolius
6.2	-3.0	842.	25	7	20696	Trifolium resupinatum
7.0	-.2	982.	14	1	20369	Trifolium stellatum
6.8	.2	838.	2	1	38465	Tulipa saxatilis
5.7	-6.5	810.	27	2	45231	Vaccaria hispanica
6.4	-2.5	901.	18	0	34768	Valerianella eriocarpa
5.5	-5.8	879.	25	1	32871	Verbascum blattaria
5.6	-5.7	877.	26	3	32841	Verbascum phlomoides
6.0	-7.1	665.	2	0	33749	Verbascum pyramidatum
5.8	-6.6	883.	10	0	32855	Verbascum speciosum
6.0	-4.6	988.	17	0	33324	Veronica acinifolia
5.9	-1.7	911.	2	0	32738	Veronica reptans
7.3	.8	992.	13	1	15337	Viburnum tinus
5.4	-5.9	988.	17	3	22136	Vicia pannonica
8.1	1.8	843.	8	0	2525	Vinca difformis
5.4	-3.4	985.	16	11	2533	Vinca major
6.3	-3.9	848.	26	8	34500	Vitis vinifera
5.9	-4.9	836.	27	0	10168	Xanthium strumarium

Kent list, European natives (colder half; 248 spp.)

TIV	TJAN	PREC	N	NI	NCODE	NAME (FIRST 23 LETTERS)
4.1	-7.3	992.	23	6	697	<i>Abies alba</i>
4.5	-8.5	863.	26	2	801	<i>Acer platanoides</i>
4.9	-5.9	914.	26	4	803	<i>Acer pseudoplatanus</i>
4.3	-9.8	910.	11	0	5359	<i>Achillea distans</i>
3.2	-7.8	990.	28	4	2007	<i>Aegopodium podagraria</i>
4.0	-4.4	1116.	11	7	24982	<i>Aesculus hippocastanum</i>
4.2	-5.7	968.	38	3	16318	<i>Agrostemma githago</i>
2.9	-7.0	1390.	3	1	29802	<i>Alchemilla conjuncta</i>
5.3	-10.4	645.	1	0	30970	<i>Alchemilla mollis</i>
5.3	-3.7	880.	2	1	30684	<i>Alchemilla tytthantha</i>
4.8	-5.3	944.	22	4	39360	<i>Allium carinatum</i>
4.8	-4.9	1158.	2	0	39298	<i>Allium moly</i>
3.9	-7.4	859.	27	7	11695	<i>Alnus incana</i>
4.9	-7.0	851.	31	6	13424	<i>Alyssum alyssoides</i>
4.9	-6.8	784.	7	2	12206	<i>Anchusa ochroleuca</i>
4.5	-8.0	836.	27	2	12527	<i>Anchusa officinalis</i>
4.5	-4.3	1036.	13	8	27220	<i>Anemone apennina</i>
4.4	-8.7	811.	25	0	27359	<i>Anemone ranunculoides</i>
2.8	-8.0	987.	24	10	1514	<i>Angelica archangelica</i>
5.2	-5.8	818.	31	3	41688	<i>Anisantha tectorum</i>
4.6	-7.5	853.	26	2	2787	<i>Anthemis tinctoria</i>
4.8	-4.9	1158.	2	0	27152	<i>Aquilegia pyrenaica</i>
4.9	-6.6	929.	20	1	13010	<i>Arabis turrita</i>
5.1	-5.8	851.	27	2	2411	<i>Aristolochia clematitis</i>
4.6	-7.2	1066.	14	0	31209	<i>Aruncus dioicus</i>
4.8	-4.9	1158.	2	0	33188	<i>Asarina procumbens</i>
4.1	-8.7	851.	25	4	2429	<i>Asarum europaeum</i>
4.8	-7.9	851.	27	4	12544	<i>Asperugo procumbens</i>
4.9	-5.8	1055.	15	3	31704	<i>Asperula taurina</i>
4.7	-8.1	843.	18	0	21198	<i>Astragalus cicer</i>
3.9	-7.8	927.	18	3	1925	<i>Astrantia major</i>
5.0	-6.1	829.	34	0	40425	<i>Avena fatua</i>
4.2	-4.4	1034.	14	7	13016	<i>Barbarea intermedia</i>
2.7	-18.4	584.	1	0	41448	<i>Beckmannia syzigachne</i>
4.4	-8.4	852.	28	8	14292	<i>Berteroa incana</i>
3.7	-8.7	839.	26	7	40620	<i>Bromopsis inermis</i>
4.6	-7.3	837.	26	13	40609	<i>Bromus arvensis</i>
4.1	.9	1303.	2	0	40626	<i>Bromus pseudosecalinus</i>
5.0	-6.2	818.	29	15	40610	<i>Bromus secalinus</i>
4.0	-8.7	825.	24	14	14415	<i>Bunias orientalis</i>
3.4	-8.8	837.	19	1	35879	<i>Calla palustris</i>
4.8	-7.6	823.	29	0	14234	<i>Camelina sativa</i>
3.9	-7.0	975.	8	6	15116	<i>Campanula medium</i>
4.8	-7.6	851.	29	1	15103	<i>Campanula persicifolia</i>
5.3	-5.8	1261.	1	0	15068	<i>Campanula portenschlagi</i>
5.3	-5.8	1261.	1	0	15069	<i>Campanula poscharskyana</i>
5.2	-5.1	1387.	3	0	15076	<i>Campanula pyramidalis</i>
4.1	-8.2	853.	27	2	15082	<i>Campanula rapunculoides</i>
4.8	-6.6	888.	26	3	15083	<i>Campanula rapunculus</i>
4.0	-6.9	1056.	8	5	15089	<i>Campanula rhomboidalis</i>
4.8	-3.7	1112.	8	1	12860	<i>Cardamine raphanifolia</i>
3.6	-10.5	1074.	9	0	14129	<i>Cardamine trifolia</i>
3.1	-7.8	987.	30	5	2331	<i>Carum carvi</i>

4.9	-6.6	851.	33	27	3132	Centaurea cyanus
3.9	-7.2	1021.	11	1	2682	Centaurea montana
5.0	-5.8	864.	28	0	16786	Cerastium brachypetalum
3.7	-6.2	997.	12	10	16387	Cerastium tomentosum
5.3	-3.7	880.	2	1	17344	Cerastium tomentosum
5.1	-6.4	1021.	17	1	1393	Chaerophyllum aureum
4.4	-6.9	1016.	17	2	1398	Chaerophyllum hirsutum
5.1	-5.8	859.	29	3	17724	Chenopodium bonus-henri
4.5	-8.1	837.	26	1	17874	Chenopodium glaucum
3.0	-7.9	887.	12	10	3060	Cicerbita macrophylla
3.8	-6.1	1083.	6	1	5540	Cicerbita plumieri
4.1	-10.3	999.	13	0	4046	Cirsium erisithales
3.8	-8.3	843.	24	2	6109	Cirsium oleraceum
1.2	-11.6	785.	5	3	18424	Cornus alba
5.2	-6.0	988.	17	1	18428	Cornus mas
4.6	-7.2	866.	24	1	25389	Corydalis cava
4.4	-8.3	843.	28	2	25469	Corydalis solida
3.8	-5.4	1042.	5	3	18085	Corylus maxima
4.4	-2.3	1170.	3	1	36462	Crocus nudiflorus
4.8	-5.6	750.	5	2	36513	Crocus tommasinianus
4.1	-7.8	1051.	15	1	36523	Crocus vernus
5.1	-6.6	855.	24	0	16443	Cucubalus baccifer
3.4	-5.9	1069.	3	2	33229	Cymbalaria pallida
4.2	-6.6	851.	35	0	13207	Descurainia sophia
4.8	-8.4	753.	17	5	16451	Dianthus barbatus
4.8	-4.9	1158.	2	0	15729	Dianthus gallicus
3.5	-8.0	994.	8	3	16429	Dianthus plumarius
3.8	-6.8	1058.	11	3	33173	Digitalis lutea
4.7	-7.0	845.	25	12	40681	Digitaria ischaemum
4.2	-8.1	731.	9	5	19104	Dipsacus strigosus
4.3	-8.7	1098.	9	0	3889	Doronicum columnae
4.4	-5.1	973.	10	3	3685	Doronicum pardalianches
4.4	-6.9	808.	9	3	3278	Echinops exaltatus
4.9	-7.8	895.	21	3	2586	Echinops sphaerocephalu
4.5	-6.2	943.	12	8	27181	Eranthis hyemalis
3.4	-8.7	880.	18	9	13240	Eructastrum gallicum
5.0	-8.6	754.	12	0	1329	Eryngium planum
3.0	-8.4	847.	23	0	14097	Erysimum cheiranthoides
5.1	-.4	987.	3	1	20274	Euphorbia coralliooides
4.4	-5.9	872.	19	2	20247	Euphorbia dulcis
4.4	-8.3	853.	29	7	20227	Euphorbia esula sens.st
4.6	-7.0	841.	21	5	2255	Falcaria vulgaris
5.0	-5.2	862.	23	2	41814	Festuca heterophylla
4.2	-8.6	857.	25	8	30348	Fragaria muricata
5.1	-7.4	787.	5	0	35516	Galanthus elwesii
5.2	-6.0	982.	21	4	21307	Galega officinalis
4.8	-4.9	1158.	2	0	21780	Genista hispanica
5.3	-7.3	937.	16	0	23062	Gentiana asclepiadea
3.3	-10.0	1082.	9	0	23011	Gentiana clusii
5.1	-1.9	995.	4	2	22570	Geranium endressii
5.1	-5.6	1025.	13	4	22582	Geranium macrorrhizum
4.7	-4.2	1058.	10	4	22586	Geranium nodosum
4.1	-7.2	949.	21	6	22588	Geranium phaeum
4.7	-2.7	1064.	8	3	22561	Geranium versicolor
3.9	-10.1	970.	8	6	38653	Hemerocallis lilioaspho
3.8	-8.7	857.	23	1	26984	Hepatica nobilis
4.7	-5.0	858.	29	15	14004	Hesperis matronalis
3.9	-7.3	1085.	14	1	9177	Homogyne alpina
4.8	-3.7	1148.	3	0	39045	Hyacinthoides italicica

4.8	-4.9	1158.	2	0	23246	Hypericum nummularium
4.8	-7.4	858.	19	4	24658	Hyssopus officinalis
5.3	-2.9	1044.	9	2	14550	Iberis sempervirens
4.7	-7.6	839.	29	20	7875	Inula helenium
4.8	-4.9	1158.	2	0	36636	Iris latifolia
3.3	-11.1	841.	17	1	36687	Iris sibirica
4.0	-7.2	909.	13	1	36693	Iris spuria
5.0	-6.8	841.	32	0	14558	Isatis tinctoria
3.8	-8.9	1168.	7	0	21915	Laburnum alpinum
3.8	-6.0	1061.	12	3	20994	Laburnum anagyroides
4.2	-8.4	802.	19	12	7416	Lactuca tatarica
5.2	-7.0	853.	27	2	24189	Lamium maculatum
3.7	-6.8	924.	18	8	653	Larix decidua
5.1	-2.8	995.	5	1	33602	Lathraea clandestina
4.8	-6.1	1013.	11	0	19830	Lathyrus heterophyllus
4.7	-7.1	863.	28	0	21815	Lathyrus niger
4.5	-7.2	866.	24	3	19845	Lathyrus tuberosus
2.9	-10.2	723.	12	1	19499	Ledum palustre
4.4	-8.4	852.	28	1	23833	Leonurus cardiaca
5.2	-5.4	843.	34	14	13313	Lepidium draba
4.1	-11.1	842.	9	2	8050	Leucanthemella serotina
4.7	-6.9	866.	28	7	39063	Lilium martagon
4.4	-2.3	1170.	3	1	38557	Lilium pyrenaicum
4.4	-2.3	1170.	3	1	33584	Linaria arenaria
4.4	-2.0	925.	5	3	33748	Linaria purpurea
4.2	-4.4	1083.	6	2	33084	Linaria supina
5.3	-4.8	837.	33	17	43196	Lolium multiflorum
4.6	-6.9	1036.	18	10	15368	Lonicera caprifolium
4.7	-5.4	1000.	22	15	13513	Lunaria annua
4.4	-7.8	845.	23	7	36273	Luzula luzuloides
4.7	-6.8	859.	25	11	28929	Lysimachia punctata
4.9	-7.1	835.	24	2	25705	Malva alcea
4.5	-7.3	742.	26	3	25668	Malva pusilla
3.5	-8.4	853.	22	3	57	Matteuccia struthiopter
4.4	-8.3	853.	29	2	21420	Melilotus albus
4.1	-7.2	971.	23	2	22213	Melilotus altissimus
4.8	-7.0	851.	31	6	22218	Melilotus officinalis
5.3	-4.8	837.	33	4	20019	Mercurialis annua
4.9	-5.2	859.	31	0	26442	Oenothera biennis
4.0	-7.0	1009.	13	1	26448	Oenothera glazioviana
4.3	-7.0	978.	15	10	11923	Omphalodes verna
4.7	-6.2	955.	20	17	39001	Ornithogalum nutans
4.9	-5.8	869.	8	4	22019	Ornithopus sativus
4.2	-7.8	991.	17	2	27723	Persicaria alpina
3.0	-6.4	1079.	20	3	11005	Petasites albus
3.7	-7.5	1035.	16	6	1118	Peucedanum ostruthium
3.5	-11.4	991.	5	3	23160	Philadelphus coronarius
5.0	-6.9	888.	22	2	35072	Physalis alkekengi
3.4	-9.4	1350.	4	0	14771	Phyteuma scheuchzeri
3.8	-8.1	889.	26	6	670	Picea abies
5.1	-6.4	847.	26	2	6987	Pilosella praealta
5.1	-4.5	966.	22	9	593	Pinus nigra
4.0	-7.6	918.	23	8	42902	Poa chaixii
4.1	-8.1	828.	26	1	43610	Poa palustris
4.8	-6.1	901.	23	5	44617	Populus x canescens
3.2	-9.0	828.	18	14	30887	Potentilla intermedia
3.4	-8.8	841.	21	6	29685	Potentilla norvegica
5.3	-6.1	853.	28	6	29347	Potentilla recta
3.7	-10.3	1055.	10	0	28913	Primula auricula

5.1	-5.6	1002.	14	8	29699	Prunus cerasifera
5.2	-5.6	851.	33	0	29700	Prunus domestica
5.0	-6.0	982.	21	2	29650	Prunus mahaleb
5.2	-3.9	1088.	7	4	45590	Pseudofumaria alba
3.5	-6.5	948.	15	13	45589	Pseudofumaria lutea
4.0	-7.8	884.	19	1	11796	Pulmonaria officinalis
5.0	-7.6	925.	5	0	12259	Pulmonaria rubra
4.8	-7.4	939.	20	0	31153	Pyrus pyraster
5.2	-6.1	1022.	15	1	22497	Quercus cerris
4.8	-4.9	1158.	2	0	22696	Ramonda myconi
3.5	-9.1	1122.	8	0	26864	Ranunculus aconitifoliu
3.7	-8.7	892.	15	4	14611	Rapistrum perenne
3.4	-8.8	881.	6	1	19518	Rhododendron luteum
4.4	-7.8	854.	23	9	13904	Rorippa austriaca
3.7	-8.4	963.	16	2	29258	Rosa glauca
4.2	-10.0	670.	12	2	27622	Rumex confertus
4.9	-7.9	875.	19	6	27551	Rumex patientia
4.0	-7.2	1080.	15	1	27602	Rumex pseudoalpinus
2.7	-14.8	603.	5	0	32683	Salix acutifolia
2.9	-11.4	981.	15	0	32605	Salix daphnoides
5.2	-8.0	888.	20	0	23588	Salvia glutinosa
4.8	-6.8	853.	27	9	23952	Salvia verticillata
3.9	-7.8	859.	23	5	15364	Sambucus racemosa
3.8	-8.8	1170.	7	0	31408	Saxifraga cuneifolia
4.3	-10.2	808.	1	0	31409	Saxifraga cymbalaria
4.2	-3.9	1029.	5	3	31618	Saxifraga umbrosa
4.1	-5.4	1000.	7	5	31435	Saxifraga x geum
4.8	-4.9	1158.	2	0	38528	Scilla lilio-hyacinthus
4.1	-7.8	877.	18	6	33383	Scrophularia vernalis
4.8	-7.1	938.	16	5	25013	Scutellaria altissima
4.5	-7.8	757.	20	2	23966	Scutellaria hastifolia
4.6	-7.6	855.	28	6	21810	Securigera varia
2.6	-8.8	1352.	5	1	18187	Sedum anacampseros
5.0	-5.6	860.	25	2	18224	Sedum rupestre
3.7	-7.9	846.	19	1	18275	Sedum sexangulare
3.0	-9.6	1215.	8	1	18351	Sempervivum tectorum
4.3	-8.0	1098.	11	0	9471	Senecio doronicum
3.8	-8.3	818.	17	3	9545	Senecio fluvialis
4.6	-7.5	858.	23	9	11179	Senecio vernalis
5.2	-5.6	928.	20	2	16602	Silene italica
4.2	-5.7	968.	38	5	13450	Sinapis alba
4.0	-7.7	851.	31	18	13034	Sisymbrium altissimum
4.7	-7.2	843.	24	8	13930	Sisymbrium loeselii
3.9	-7.3	1003.	18	3	13809	Sisymbrium strictissimu
3.4	-9.1	711.	8	7	12712	Sisymbrium volgense
2.4	-9.8	1185.	2	0	29539	Sorbus decipiens
2.0	-9.0	745.	4	0	29542	Sorbus hybrida
3.1	-7.5	706.	8	1	30014	Sorbus intermedia
4.3	-4.9	1070.	5	1	29544	Sorbus latifolia
3.8	-7.8	738.	15	0	17638	Spergula morisonii
3.9	-9.8	1074.	10	3	30069	Spiraea chamaedryfolia
3.6	-7.9	843.	20	11	29508	Spiraea salicifolia sen
5.2	-7.6	888.	20	0	24800	Stachys recta
3.7	-7.9	1036.	13	1	34660	Staphylea pinnata
4.7	-6.7	1076.	6	4	12215	Symphytum orientale
4.7	-5.4	1017.	16	11	26377	Syringa vulgaris
4.5	-6.2	905.	10	5	10157	Tanacetum macrophyllum
4.3	-7.8	891.	14	6	9521	Telekia speciosa
5.0	-6.4	873.	19	1	21564	Tetragonolobus maritimu

4.6	-9.2	853.	21	0	26672	<i>Thalictrum aquilegiifol</i>
5.2	-6.2	1032.	14	2	13472	<i>Thlaspi alliaceum</i>
5.2	-5.2	1011.	5	2	23794	<i>Thymus vulgaris</i>
4.2	-8.6	853.	27	1	21992	<i>Trifolium aureum</i>
4.4	-7.9	839.	29	13	21107	<i>Trifolium hybridum</i>
4.4	-9.0	908.	11	0	22092	<i>Trifolium pannonicum</i>
5.2	-6.0	917.	26	10	38854	<i>Tulipa sylvestris</i>
4.3	-.5	1186.	4	2	34797	<i>Valeriana pyrenaica</i>
5.3	-5.7	969.	17	5	36310	<i>Vallisneria spiralis</i>
5.0	-9.0	864.	17	0	33327	<i>Verbascum chaixii</i>
4.8	-7.0	857.	25	0	33851	<i>Verbascum densiflorum</i>
4.8	-8.3	857.	23	0	32781	<i>Veronica austriaca</i>
3.8	-8.7	740.	21	0	32803	<i>Veronica longifolia</i>
4.8	-5.6	888.	24	1	33746	<i>Veronica praecox</i>
5.0	-6.9	836.	29	2	22123	<i>Vicia tenuifolia</i>
5.1	-6.6	827.	34	9	21598	<i>Vicia villosa</i>
4.8	-6.1	845.	27	6	2536	<i>Vinca minor</i>
3.7	-6.5	1133.	9	7	35360	<i>Viola cornuta</i>

Kent list, exotic to Europe (warmer half; 64 spp.)

TIV	TJAN	PREC	N	NI	NCODE	NAME (FIRST 23 LETTERS)
6.7	0.3	990.	6	6	20741	Acacia melanoxylon
7.8	0.9	971.	13	13	35573	Agave americana
6.0	-3.5	933.	22	22	34523	Ailanthes altissima
5.9	-5.4	829.	28	28	891	Amaranthus albus
6.2	-4.8	842.	20	20	896	Amaranthus cruentus
6.4	-3.8	832.	21	21	900	Amaranthus deflexus
6.1	-3.1	860.	23	23	897	Amaranthus hybridus
7.4	2.3	910.	9	9	913	Aptenia cordifolia
5.4	-5.9	854.	21	21	17771	Atriplex hortensis
5.7	-3.7	926.	15	15	22	Azolla filiculoides
5.6	1.3	1059.	4	4	3991	Calendula officinalis
6.2	0.2	961.	13	13	922	Carpobrotus edulis
5.9	-2.3	1110.	4	4	646	Cedrus atlantica
5.9	-2.3	1110.	4	4	649	Cedrus deodara
6.5	-3.0	860.	20	20	17719	Chenopodium ambrosioides
5.4	-5.0	829.	34	34	5194	Conyza canadensis
5.6	-3.0	911.	22	22	13200	Coronopus didymus
5.4	1.0	1020.	4	4	40648	Cortaderia selloana
9.8	3.3	1088.	1	1	6113	Cotula australis
5.9	-0.8	978.	9	9	5009	Cotula coronopifolia
5.9	0.4	967.	7	7	733	Cupressus macrocarpa
5.4	-6.2	936.	20	20	18871	Cuscuta campestris
6.3	-4.3	988.	19	19	30948	Cydonia oblonga
7.4	1.9	1004.	4	4	37597	Cyperus eragrostis
5.5	0.8	911.	6	6	324	Cyrtomium falcatum
5.4	-5.0	847.	32	32	34907	Datura stramonium
6.4	1.3	991.	7	7	10345	Delairea odorata
8.2	-0.3	897.	6	2	15721	Dianthus caryophyllus
6.5	2.3	1005.	4	4	861	Disphyma crassifolium
6.8	2.3	982.	5	5	44875	Drosanthemum floribundum
5.8	-1.3	994.	8	8	3551	Erigeron karvinskianus
5.7	-3.7	971.	21	21	12871	Erysimum cheiri
7.2	0.2	770.	3	3	25478	Eschscholzia californica
6.3	-3.7	1006.	14	14	20176	Euphorbia maculata
9.8	3.3	1088.	1	1	7231	Gazania rigens
5.5	-6.5	823.	2	2	2457	Hedera colchica
5.7	-6.8	888.	14	14	7986	Helianthus annuus
7.8	-1.1	906.	6	6	39050	Hyacinthus orientalis
5.8	-4.1	853.	27	27	36614	Iris germanica
7.1	2.9	995.	4	4	36726	Ixia paniculata
6.7	2.3	945.	6	6	44885	Lampranthus falciformis
6.5	-2.6	981.	7	7	25309	Morus nigra
6.5	2.3	1005.	4	4	44797	Muehlenbeckia complexa
5.7	-5.0	946.	10	10	34982	Nicandra physalodes
7.7	2.0	926.	5	5	38592	Nothoscordum borbonicum
6.1	2.0	1043.	6	6	25841	Oxalis articulata
5.4	-1.2	1086.	6	6	25837	Oxalis debilis
6.1	2.0	1043.	6	6	25830	Oxalis latifolia
7.4	0.9	859.	11	11	25829	Oxalis pes-caprae
6.3	-4.4	853.	25	25	42881	Phalaris canariensis
6.3	1.6	1030.	7	7	616	Pinus radiata
5.9	-4.6	837.	29	4	27501	Portulaca oleracea
6.4	-4.6	857.	22	22	30865	Prunus dulcis

6.4	-4.3	855.	23	23	29943	<i>Prunus persica</i>
5.7	-4.8	992.	19	19	22045	<i>Robinia pseudacacia</i>
6.3	1.2	1218.	2	2	27517	<i>Rumex frutescens</i>
6.3	1.2	1218.	2	2	44867	<i>Ruschia caroli</i>
6.4	1.3	991.	7	7	34967	<i>Salpichroa organifolia</i>
5.8	0.2	968.	10	9	439	<i>Selaginella kraussiana</i>
5.5	-4.6	1262.	4	4	34908	<i>Solanum chenopodioides</i>
6.7	-3.0	839.	21	21	43116	<i>Sorghum halepense</i>
6.6	0.1	842.	5	5	35786	<i>Tradescantia fluminensi</i>
6.4	-3.8	858.	25	25	11345	<i>Xanthium spinosum</i>
5.9	0.4	865.	3	3	35895	<i>Zantedeschia aethiopica</i>

Kent list, exotic to Europe (colder half; 225 spp.)

TIV	TJAN	PREC	N	NI	NCODE	NAME (FIRST 23 LETTERS)
3.3	-6.2	1143.	8	8	634	<i>Abies grandis</i>
3.8	-2.3	1070.	5	5	642	<i>Abies procera</i>
4.1	0.9	1303.	2	2	31004	<i>Acaena anserinifolia</i>
3.8	-10.7	946.	10	10	785	<i>Acer negundo</i>
3.9	-7.5	847.	23	23	35825	<i>Acorus calamus</i>
3.6	-0.3	1606.	1	1	39394	<i>Agapanthus praecox</i>
2.6	-11.4	1268.	2	2	41403	<i>Agrostis scabra</i>
4.5	-6.7	1059.	13	13	25760	<i>Alcea rosea</i>
4.1	-3.5	774.	5	5	38827	<i>Allium paradoxum</i>
5.2	-5.0	843.	30	30	931	<i>Amaranthus retroflexus</i>
4.6	-7.2	895.	12	12	4198	<i>Ambrosia artemisiifolia</i>
5.1	-1.0	938.	5	5	30928	<i>Amelanchier lamarckii</i>
3.6	-0.3	1606.	1	1	12585	<i>Amsinckia lycopsoides</i>
3.6	-6.9	857.	11	11	5740	<i>Anaphalis margaritacea</i>
3.1	-2.7	1293.	2	2	35600	<i>Aponogeton distachyos</i>
4.4	-8.0	855.	28	28	13400	<i>Armoracia rusticana</i>
3.6	-11.6	952.	14	14	5370	<i>Artemisia abrotanum</i>
4.1	-6.2	1100.	10	10	4943	<i>Artemisia verlotiorum</i>
3.9	-6.4	943.	11	11	5953	<i>Aster laevis</i>
4.2	-6.6	1025.	16	16	5496	<i>Aster lanceolatus</i>
3.9	-7.1	947.	12	12	5614	<i>Aster novae-angliae</i>
3.9	-6.4	970.	18	18	4901	<i>Aster novi-belgii</i>
3.9	-6.5	735.	3	3	5845	<i>Aster schreberi</i>
3.4	-8.8	845.	21	21	4781	<i>Aster x salignus</i>
3.8	-7.2	1011.	11	11	3321	<i>Aster x versicolor</i>
3.7	-6.8	924.	24	24	40565	<i>Avena strigosa</i>
4.8	-4.9	1158.	2	2	5005	<i>Baccharis halimifolia</i>
5.3	-8.0	885.	20	18	44831	<i>Bassia scoparia</i>
4.1	0.9	1303.	2	2	45522	<i>Berberis darwinii</i>
2.6	-11.3	1216.	3	3	31306	<i>Bergenia crassifolia</i>
4.1	-6.8	859.	6	6	3153	<i>Bidens connata</i>
4.5	-6.2	1009.	16	16	6191	<i>Bidens frondosa</i>
4.8	-8.6	778.	4	4	13688	<i>Brassica juncea</i>
4.9	-4.7	861.	24	24	13695	<i>Brassica rapa</i>
4.2	-2.9	922.	9	9	42159	<i>Bromus lepidus</i>
3.3	-5.5	997.	2	2	12168	<i>Brunnera macrophylla</i>
4.0	-4.8	1071.	10	10	15414	<i>Buddleja davidii</i>
3.5	-6.3	922.	11	11	18975	<i>Calystegia pulchra</i>
3.6	-0.3	1606.	1	0	15267	<i>Campanula alliariifolia</i>
3.3	-5.5	997.	2	0	15143	<i>Campanula lactiflora</i>
3.8	-6.8	944.	6	6	37584	<i>Carex vulpinoidea</i>
3.1	-2.7	1293.	2	2	44872	<i>Carpobrotus glaucescens</i>
5.0	-1.0	957.	2	2	40352	<i>Ceratochloa carinata</i>
5.3	-5.7	796.	6	6	42170	<i>Ceratochloa cathartica</i>
4.4	-5.7	975.	11	11	724	<i>Chamaecyparis lawsonian</i>
4.9	-5.3	973.	6	6	44801	<i>Chenopodium pumilio</i>
4.4	-3.2	877.	9	9	27495	<i>Claytonia perfoliata</i>
2.6	-5.6	1029.	8	8	27498	<i>Claytonia sibirica</i>
5.1	-6.3	841.	21	21	2310	<i>Coriandrum sativum</i>
2.4	-9.3	1110.	4	4	18436	<i>Cornus sericea</i>
2.9	-5.8	1458.	2	2	29735	<i>Cotoneaster horizontalis</i>
4.1	0.9	1303.	2	2	29402	<i>Cotoneaster integrifoli</i>
2.8	-2.8	1271.	4	4	29738	<i>Cotoneaster simonsii</i>

3.6	-0.3	1606.	1	1	46100	Crassula decumbens
3.6	-0.3	1606.	1	1	46103	Crassula helmsii
4.3	-6.5	846.	3	3	30375	Crataegus crus-galli
3.6	-0.3	1606.	1	1	46162	Darmera peltata
5.1	-1.9	777.	3	3	45574	Dicentra formosa
5.2	1.9	1108.	3	3	18807	Dichondra micrantha
4.1	0.9	1303.	2	0	44441	Dicksonia antarctica
5.3	-4.9	926.	11	11	19175	Dipsacus sativus
4.1	-5.1	1211.	5	5	30010	Duchesnea indica
3.7	-6.9	1153.	7	7	36334	Egeria densa
3.1	-2.7	1293.	2	2	36343	Elodea callitrichoides
3.8	-8.2	850.	26	26	36340	Elodea canadensis
4.3	-3.2	1083.	5	5	36344	Elodea nuttallii
4.1	0.9	1303.	2	2	26499	Epilobium brunnescens
3.2	-8.7	731.	15	15	26066	Epilobium ciliatum
4.3	1.3	1202.	1	1	26506	Epilobium pedunculare
3.6	-0.3	1606.	1	1	44887	Erepsia heteropetala
3.9	-8.8	846.	17	17	5070	Erigeron annuus
5.3	-5.9	996.	5	5	18404	Euonymus japonicus
5.3	-5.3	830.	31	31	27702	Fagopyrum esculentum
3.5	-7.7	988.	5	5	44739	Fallopia baldschuanica
3.9	-7.2	912.	23	23	27574	Fallopia japonica
3.7	-6.8	801.	15	15	27578	Fallopia sachalinensis
3.1	-2.7	1293.	2	2	35796	Fascicularia pitcairnii
5.2	2.4	1036.	3	3	26476	Fuchsia magellanica
4.1	-6.6	843.	24	24	7147	Galinsoga parviflora
4.1	-6.7	845.	23	23	6801	Galinsoga quadriradiata
4.1	0.9	1303.	2	2	19510	Gaultheria mucronata
3.1	-2.7	1293.	2	2	19494	Gaultheria shallon
2.3	-9.1	1188.	1	1	22634	Geranium ibericum
2.7	-8.5	932.	5	5	29363	Geum macrophyllum
2.2	-8.9	1227.	2	2	6686	Gnaphalium undulatum
4.9	1.7	1052.	4	4	25225	Gunnera tinctoria
5.2	2.4	1036.	3	3	34193	Hebe salicifolia
4.3	-7.7	1056.	12	12	7788	Helianthus tuberosus
3.9	-7.3	752.	6	6	9090	Helianthus x laetifloru
3.8	-10.9	1020.	11	11	38237	Hemerocallis fulva
3.2	-8.0	938.	15	15	1295	Heracleum mantegazzianu
3.1	-7.6	869.	8	8	43702	Hordeum jubatum
4.3	1.3	1202.	1	1	2204	Hydrocotyle moschata
5.0	-0.2	906.	2	0	23312	Hypericum canadense
3.1	-2.7	1293.	2	2	11747	Impatiens capensis
3.5	-7.5	848.	21	21	11749	Impatiens glandulifera
3.6	-8.0	842.	17	17	11752	Impatiens parviflora
2.9	-4.4	1282.	2	2	36721	Iris versicolor
3.7	-11.4	788.	10	10	8135	Iva xanthifolia
4.3	1.3	1202.	1	1	36047	Juncus planifolius
4.4	-6.5	843.	26	26	36112	Juncus tenuis
2.9	-4.4	1282.	2	2	19496	Kalmia angustifolia
3.6	-0.3	1606.	1	1	19497	Kalmia polifolia
3.9	-11.3	1037.	4	4	30016	Kerria japonica
5.0	-9.3	775.	3	3	31693	Koelreuteria paniculata
2.7	-6.9	1371.	4	4	36304	Lagarosiphon major
3.7	-4.7	899.	11	11	665	Larix kaempferi
2.3	-9.1	1188.	1	1	36879	Lemna minuta
4.0	-6.5	947.	33	33	13505	Lepidium sativum
4.3	-5.6	962.	18	18	13952	Lepidium virginicum
4.2	-8.7	851.	25	25	2151	Levisticum officinale
4.9	1.7	1052.	4	4	15392	Leycesteria formosa

4.0	-4.0	1090.	7	7	15381	Lonicera japonica
4.1	0.9	1303.	2	2	21451	Lupinus arboreus
2.0	-4.7	1501.	2	2	20589	Lupinus nootkatensis
3.5	-8.0	849.	15	15	22241	Lupinus polyphyllus
4.8	-6.1	869.	27	27	35086	Lycium barbarum
4.1	-6.1	1009.	13	13	35031	Lycium chinense
4.1	0.9	1303.	2	2	35892	Lysichiton americanus
5.2	-1.3	1017.	2	2	28986	Lysimachia ciliata
3.6	-0.3	1606.	1	1	28880	Lysimachia terrestris
4.3	-6.7	827.	14	14	11687	Mahonia aquifolium
5.3	-4.8	836.	35	35	30045	Malus domestica
3.8	-8.7	771.	16	16	25681	Malva verticillata
2.7	-7.9	997.	27	27	5904	Matricaria discoidea
5.1	-4.3	894.	28	28	24289	Mentha spicata
3.9	-7.3	913.	23	18	23631	Mentha x gracilis (M. a)
3.9	-6.4	993.	14	14	24698	Mentha x smithiana (M.
3.5	-7.5	851.	19	19	34136	Mimulus guttatus
3.6	-0.3	1606.	1	1	34406	Mimulus luteus
4.5	-5.1	766.	12	12	34076	Mimulus moschatus
5.0	-1.0	957.	2	2	25313	Myrica cerifera
3.6	-0.3	1606.	1	1	35682	Narcissus pseudonarciss
3.7	-6.2	1179.	3	3	35780	Narcissus x odorus
2.9	-4.4	1282.	2	2	44646	Nothofagus nervosa
2.9	-4.4	1282.	2	2	44645	Nothofagus obliqua
4.7	-5.1	1013.	9	9	26466	Oenothera stricta
2.9	-4.4	1282.	2	2	62	Onoclea sensibilis
3.6	-0.3	1606.	1	1	25836	Oxalis debilis
3.1	-2.7	1293.	2	2	25833	Oxalis exilis
3.1	-2.7	1293.	2	2	25832	Oxalis incarnata
4.4	-6.9	858.	26	26	25834	Oxalis stricta
5.3	-4.4	1087.	10	10	25827	Oxalis stricta
3.7	-9.2	1247.	3	3	25826	Oxalis tetraphylla
3.7	-3.8	1111.	3	3	25501	Papaver atlanticum
4.0	-7.2	780.	10	10	34510	Parthenocissus inserta
3.7	-6.8	1153.	5	5	34514	Parthenocissus quinquefolia
5.3	-5.8	1261.	1	1	34516	Parthenocissus tricuspidata
4.1	0.9	1303.	2	2	44733	Persicaria amplexicaulis
4.1	0.9	1303.	2	2	27751	Persicaria campanulata
4.3	1.3	1202.	1	1	27682	Persicaria sagittata
3.2	-6.5	1047.	10	10	27675	Persicaria wallichii
4.5	-3.1	772.	4	4	11313	Petasites japonicus
5.3	-5.2	839.	31	31	1095	Petroselinum crispum
4.1	-7.8	846.	19	19	25220	Phacelia tanacetifolia
5.2	2.4	1036.	3	3	38921	Phormium tenax
3.9	-6.3	1009.	7	7	29711	Physocarpus opulifolius
2.8	-5.4	1009.	8	8	691	Picea sitchensis
2.8	-6.5	887.	12	12	579	Pinus contorta
4.1	-7.9	860.	14	14	623	Pinus strobus
3.6	-0.3	1606.	1	1	27875	Pittosporum crassifolium
3.6	-0.3	1606.	1	1	42684	Poa flabellata
2.5	-12.1	1530.	2	2	44064	Pontederia cordata
3.5	-6.8	888.	8	8	44620	Populus candicans
4.0	-7.2	942.	25	25	29305	Prunus cerasus
3.9	-7.2	796.	11	11	29315	Prunus serotina
4.9	1.7	1052.	4	4	40888	Pseudosasa japonica
3.9	-6.4	942.	18	18	562	Pseudotsuga menziesii
4.5	-7.1	900.	18	18	22466	Quercus rubra
3.6	-0.3	1606.	1	1	44745	Rheum x hybridum
4.2	-9.4	1063.	7	7	955	Rhus hirta

2.3	-9.1	1188.	1	1	36793	Romulea rosea
3.2	-6.8	885.	13	13	30857	Rosa rugosa
3.0	-6.6	1299.	3	3	29646	Rosa virginiana
4.4	-7.9	895.	2	2	30880	Rosa x alba
3.6	-7.0	764.	10	10	29212	Rubus laciniatus
3.8	-6.2	833.	7	7	31060	Rubus odoratus
2.7	-8.1	1400.	4	4	30497	Rubus phoenicolasius
4.0	-3.5	961.	4	4	30773	Rubus spectabilis
4.2	-8.4	890.	12	12	11072	Rudbeckia hirta
4.1	-7.1	943.	14	14	9935	Rudbeckia laciniata
2.4	-7.8	900.	5	5	27606	Rumex salicifolius
3.1	-12.8	1013.	7	7	35652	Sagittaria latifolia
3.6	-0.3	1606.	1	1	35604	Sagittaria rigida
3.6	-0.3	1606.	1	1	35606	Sagittaria subulata
3.3	-4.3	1327.	2	2	31302	Sarracenia purpurea
3.9	0.3	1195.	3	3	43636	Sasa palmata
3.6	-0.3	1606.	1	1	41428	Sasaella ramosa
3.9	0.3	1195.	3	3	31619	Saxifraga x urbium
2.2	-8.9	1227.	2	2	18255	Sedum praealtum
3.9	-6.7	925.	18	18	18278	Sedum spurium
3.9	-5.4	1005.	3	3	9629	Senecio inaequidens
3.6	-0.3	1606.	1	1	11497	Senecio smithii
2.9	-4.4	1282.	2	2	10459	Sigesbeckia serrata
3.1	-2.7	1293.	2	2	41426	Sinarundinaria anceps
4.3	1.3	1202.	1	1	36819	Sisyrinchium californicum
3.1	-9.1	1044.	11	11	36805	Sisyrinchium montanum
5.2	-1.3	1017.	2	2	34912	Solanum triflorum
4.0	-7.3	846.	19	19	9491	Solidago canadensis
4.3	-5.2	906.	20	20	10023	Solidago gigantea
3.4	-7.8	1044.	9	9	9892	Solidago graminifolia
2.2	-8.3	856.	6	6	29158	Sorbaria sorbifolia
2.3	-9.1	1188.	1	1	29534	Sorbaria tomentosa
4.4	-2.3	1170.	3	3	42746	Spartina alterniflora
3.5	-7.8	745.	7	7	29502	Spiraea alba
3.9	-7.2	752.	6	6	31020	Spiraea douglasii
3.5	-10.9	979.	5	5	30733	Spiraea japonica
3.8	-7.0	804.	3	3	30734	Spiraea tomentosa
3.9	-10.6	769.	4	4	29820	Spiraea x vanhouttei
3.5	-6.7	970.	14	14	15329	Symporicarpus albus
3.2	-8.7	879.	12	12	12210	Symphytum asperum
3.6	-0.3	1606.	1	1	11819	Symphytum ibericum
3.5	-5.0	918.	10	10	11769	Symphytum x uplandicum
4.1	-1.6	1038.	4	4	31626	Tellima grandiflora
3.6	-0.3	1606.	1	1	45961	Thlaspi macrophyllum
3.7	-6.4	1089.	7	7	44580	Thuja plicata
3.6	-0.3	1606.	1	1	31628	Tolmeia menziesii
3.3	-9.7	1010.	3	3	35787	Tradescantia virginiana
3.1	-2.7	1293.	2	2	38124	Tristagma uniflorum
3.5	-3.4	1064.	6	6	568	Tsuga heterophylla
3.8	-4.9	1101.	4	4	19470	Vaccinium macrocarpon
3.6	-0.3	1606.	1	1	33312	Veronica crista-galli
3.9	-6.6	950.	13	13	33807	Veronica filiformis
4.0	-5.4	936.	19	19	33270	Veronica peregrina
4.8	-4.8	843.	36	36	33737	Veronica persica

Kent list, exotic to Europe (unknown preference; 44 spp.)

TIV	TJAN	PREC	N	NI	NCODE	NAME (FIRST 23 LETTERS)
0.0	0.0	0.	0	0	805	Acer saccharinum
0.0	0.0	0.	0	0	24980	Aesculus carnea
0.0	0.0	0.	0	0	11699	Alnus x pubescens
0.0	0.0	0.	0	0	12584	Amsinckia micrantha
0.0	0.0	0.	0	0	12586	Amsinckia micrantha
0.0	0.0	0.	0	0	25430	Argemone mexicana
0.0	0.0	0.	0	0	18418	Aucuba japonica
0.0	0.0	0.	0	0	41151	Avena sativa
0.0	0.0	0.	0	0	14206	Brassica napus
0.0	0.0	0.	0	0	15413	Buddleja alternifolia
0.0	0.0	0.	0	0	15416	Buddleja globosa
0.0	0.0	0.	0	0	19362	Cephalaria gigantea
0.0	0.0	0.	0	0	29733	Chaenomeles speciosa
0.0	0.0	0.	0	0	729	Chamaecyparis pisifera
0.0	0.0	0.	0	0	44805	Chenopodium capitatum
0.0	0.0	0.	0	0	31231	Crataegus submollis
0.0	0.0	0.	0	0	3052	Erigeron glaucus
0.0	0.0	0.	0	0	4980	Erigeron philadelphicus
0.0	0.0	0.	0	0	30632	Fragaria ananassa
0.0	0.0	0.	0	0	13716	Helianthus x multifloru
0.0	0.0	0.	0	0	43701	Hordeum distichon
0.0	0.0	0.	0	0	660	Larix x marschlinsii
0.0	0.0	0.	0	0	26362	Ligustrum ovalifolium
0.0	0.0	0.	0	0	25866	Linum usitatissimum
0.0	0.0	0.	0	0	14842	Lobelia erinus
0.0	0.0	0.	0	0	35044	Lycopersicon esculentum
0.0	0.0	0.	0	0	23630	Mentha x piperita
0.0	0.0	0.	0	0	24785	Nepeta x faassenii
0.0	0.0	0.	0	0	25825	Oxalis valdiviensis
0.0	0.0	0.	0	0	25610	Papaver orientale
0.0	0.0	0.	0	0	44708	Persicaria mollis
0.0	0.0	0.	0	0	44709	Persicaria weyrichii
0.0	0.0	0.	0	0	32682	Populus trichocarpa
0.0	0.0	0.	0	0	23155	Pterocarya fraxinifolia
0.0	0.0	0.	0	0	29660	Pyrus communis
0.0	0.0	0.	0	0	23130	Ribes sanguineum
0.0	0.0	0.	0	0	42373	Sasa veitchii
0.0	0.0	0.	0	0	31608	Saxifraga stolonifera
0.0	0.0	0.	0	0	34997	Solanum laciniatum
0.0	0.0	0.	0	0	34915	Solanum tuberosum
0.0	0.0	0.	0	0	42962	Stipa neesiana
0.0	0.0	0.	0	0	43825	Triticum aestivum
0.0	0.0	0.	0	0	19467	Vaccinium corymbosum
0.0	0.0	0.	0	0	35209	Viola x wittrockiana

Kent list, exotic to Europe (not in Flora Europaea; 279 spp.)

BRC CODE	NAME (FIRST 23 LETTERS)
0920 2530	Acaena inermis
0920 2527	Acaena novae-zelandiae
0920 2526	Acaena ovalifolia
0920 7132	Acer cappadocicum
0920 7135	Aconitum vulparia
0920 4517	Acorus gramineus
0920 7137	Aeonium cuneatum
0920 7140	Agrostis avenacea
0920 7148	Allium uniflorum
0920 7149	Alstroemeria aurea
0920 4357	Alyssum saxatile
0920 4417	Amaranthus bouchonii
0920 7151	Amaryllis belladonna
0920 7152	Ambrosia psilostachya
0920 7154	Amomyrtus luma
0920 7158	Anemone x hybrida (A. h
0920 145	Arabis caucasica
0920 7160	Aralia chinensis
0920 7161	Aralia elata
0920 7162	Aralia racemosa
0920 2975	Araucaria araucana
0920 24	Aremonia agrimonoides
0920 7164	Arisarum proboscideum
0920 7165	Aristea ecklonii
0920 7167	Aronia arbutifolia
0920 7168	Aronia melanocarpa
0920 7169	Aronia x prunifolia
0920 7171	Artemisia biennis
0920 173	Artemisia stelleriana
0920 7175	Astilbe japonica
0920 7176	Astilbe rivularis
0920 7177	Astilbe x arendsi
0920 7184	Berberis aggregata
0920 2439	Berberis buxifolia
0920 7185	Berberis gagnepainii
0920 2441	Berberis glaucocarpa
0920 7186	Berberis julianae
0920 7187	Berberis thunbergii
0920 7188	Berberis wilsoniae
0920 7189	Berberis x stenophylla
0910 2500	Blechnum cordatum
0920 7194	Brachyglottis monroi
0920 7195	Brachyglottis repanda
0920 6960	Brassica x harmsiana
0920 4423	Bupleurum subovatum
0920 7199	Calceolaria chelidonioi
0920 7213	Carpobrotus acinaciform
0920 7217	Ceratochloa marginata
0920 7221	Chasmanthe bicolor
0920 4301	Chimonobambusa quadrang
0920 7224	Chionodoxa forbesii
0920 7225	Chionodoxa sardensis
0920 7226	Chrysocoma coma-aurea
0920 2531	Cicerbita bourgaei

0920	527	Clematis montana
0920	7229	Clematis tangutica
0920	2633	Conyza sumatrensis
0920	4391	Coprosma repens
0920	7232	Cordyline australis
0920	7233	Coreopsis grandiflora
0920	7235	Corydalis cheilanthifol
0920	7237	Cosmos bipinnatus
0920	2925	Cotoneaster adpressus
0920	2926	Cotoneaster affinis
0920	7238	Cotoneaster amoenus
0920	7239	Cotoneaster atropurpure
0920	2927	Cotoneaster bacillaris
0920	2928	Cotoneaster bullatus
0920	2929	Cotoneaster buxifolius
0920	2932	Cotoneaster cashmiriens
0920	2933	Cotoneaster congestus
0920	2934	Cotoneaster conspicuus
0920	2936	Cotoneaster dammeri
0920	2937	Cotoneaster dielsianus
0920	7240	Cotoneaster ellipticus
0920	2939	Cotoneaster franchetii
0920	559	Cotoneaster frigidus
0920	2941	Cotoneaster hissaricus
0920	7241	Cotoneaster hjelmqvisti
0920	7242	Cotoneaster ignotus
0920	7243	Cotoneaster insculptus
0920	2943	Cotoneaster lacteus
0920	7245	Cotoneaster linearifoli
0920	2944	Cotoneaster lucidus
0920	2946	Cotoneaster mucronatus
0920	2948	Cotoneaster nanshan
0920	2949	Cotoneaster nitens
0920	7246	Cotoneaster nitidus
0920	2935	Cotoneaster obtusus
0920	2950	Cotoneaster pannosus
0920	2952	Cotoneaster rehderi
0920	2954	Cotoneaster salicifoliu
0920	7247	Cotoneaster splendens
0920	2957	Cotoneaster sternianus
0920	7248	Cotoneaster transens
0920	2959	Cotoneaster villosulus
0920	7249	Cotoneaster x suecicus
0920	2960	Cotoneaster x watereri
0920	2961	Cotoneaster zabelii
0920	7251	Cotula dioica
0920	7252	Cotula squalida
0920	4478	Crambe cordifolia
0920	7120	Crassula pubescens
0920	7254	Crataegus coccinoides
0920	7256	Crataegus heterophylla
0920	7258	Crataegus pedicillata
0920	7259	Crataegus persimilis
0920	7261	Crataegus succulenta
0920	7262	Crocosmia masoniorum
0920	7263	Crocosmia paniculata
0920	2637	Crocosmia pottsii
0920	580	Crocosmia x crocosmiifl
0920	7265	Crocus kotschyanus

0920	7272	<i>Cynodon incompletus</i>
0920	7273	<i>Cynoglottis barrelieri</i>
0920	7276	<i>Cytisus nigricans</i>
0920	606	<i>Dactylis polygama</i>
0920	5336	<i>Dianthus gratianopolitanus</i>
0920	7281	<i>Downingia elegans</i>
0920	668	<i>Echinochloa crusgalli</i>
0920	7285	<i>Echium pininana</i>
0920	7287	<i>Elaeagnus umbellata</i>
0920	2638	<i>Epilobium komarovianum</i>
0920	7296	<i>Eragrostis curvula</i>
0920	7302	<i>Eryngium giganteum</i>
0920	760	<i>Escallonia macrantha</i>
0920	7304	<i>Eucalyptus pulchella</i>
0920	2998	<i>Euphorbia x pseudovirga</i>
0920	7306	<i>Euphorbia x pseudoesula</i>
0920	2446	<i>Fagopyrum dibotrys</i>
0920	7362	<i>Filipendula kamtschatic</i>
0920	7363	<i>Forsythia x intermedia</i>
0920	7364	<i>Freesia x hybrida</i>
0920	7365	<i>Fuchsia "Corallina"</i>
0920	7369	<i>Gaillardia x grandiflora</i>
0920	7370	<i>Galanthus caucasicus</i>
0920	7374	<i>Gaultheria procumbens</i>
0920	7383	<i>Geranium himalayense</i>
0920	7384	<i>Geranium maderense</i>
0920	7385	<i>Geranium psilostemon</i>
0920	7387	<i>Geranium rubescens</i>
0920	7388	<i>Geranium submolle</i>
0920	7390	<i>Gnaphalium purpureum</i>
0920	7391	<i>Grindelia stricta</i>
0920	7392	<i>Griselinia littoralis</i>
0920	4377	<i>Halorhagis micrantha</i>
0920	4322	<i>Hebe barkeri</i>
0920	4319	<i>Hebe brachysiphon</i>
0920	4323	<i>Hebe dieffenbachii</i>
0920	4320	<i>Hebe x franciscana</i>
0920	7393	<i>Hebe x lewisii</i>
0920	7395	<i>Helenium autumnale</i>
0920	7397	<i>Helichrysum bellidioide</i>
0920	7400	<i>Heuchera sanguinea</i>
0920	7402	<i>Hippocrepis emerus</i>
0920	4316	<i>Holodiscus discolor</i>
0920	2617	<i>Hyacinthoides hispanica</i>
0920	7405	<i>Hydrocotyle novae-zealandiae</i>
0920	7408	<i>Hypericum pseudohenryi</i>
0920	7409	<i>Hypericum xylostelefolium</i>
0920	7411	<i>Iris ensata</i>
0920	7413	<i>Iris orientalis</i>
0920	7419	<i>Ixia campanulata</i>
0920	7420	<i>Juncus pallidus</i>
0920	7422	<i>Kniphofia praecox</i>
0920	7423	<i>Kniphofia uvaria</i>
0920	2667	<i>Lamiastrum galeobdolon</i>
0920	2391	<i>Lampranthus roseus</i>
0920	7429	<i>Leptospermum lanigerum</i>
0920	7430	<i>Leptospermum scoparium</i>
0920	2621	<i>Leucanthemum x superbum</i>
0920	7433	<i>Libertia elegans</i>

0920	7434	<i>Libertia formosa</i>
0920	5433	<i>Ligularia dentata</i>
0920	7435	<i>Ligularia przewalskii</i>
0920	2550	<i>Limonium hyblaeum</i>
0920	7436	<i>Linaria dalmatica</i>
0920	7438	<i>Lonicera henryi</i>
0920	7439	<i>Lonicera involucrata</i>
0920	2613	<i>Lonicera nitida</i>
0920	7440	<i>Lonicera pileata</i>
0920	7445	<i>Lysichiton camtschatcen</i>
0920	1278	<i>Mentha x carinthiaca</i>
0920	2630	<i>Mentha x rotundifolia</i>
0920	1270	<i>Mentha x villosa</i>
0920	2631	<i>Mentha x villosonervata</i>
0920	4330	<i>Mimulus cupreus x gutta</i>
0920	4329	<i>Mimulus x burnetii</i>
0920	7450	<i>Mimulus x maculosus</i>
0920	4331	<i>Mimulus x robertsii</i>
0920	7451	<i>Montia parvifolia</i>
0920	4433	<i>Myriophyllum aquaticum</i>
0920	7460	<i>Nertera granadensis</i>
0920	4501	<i>Nuphar advena</i>
0920	7462	<i>Ochagavia carnea</i>
0920	7463	<i>Odontites jaubertianus</i>
0920	7464	<i>Oemleria cerasiformis</i>
0920	2368	<i>Oenothera cambrica</i>
0920	2620	<i>Olearia macrodonta</i>
0920	7471	<i>Olearia paniculata</i>
0920	7472	<i>Olearia traversii</i>
0920	7476	<i>Oryzopsis miliacea</i>
0920	2392	<i>Oscularia deltoides</i>
0920	2517	<i>Oxalis dillenii</i>
0920	2521	<i>Oxalis megalorrhiza</i>
0920	7477	<i>Oxalis rosea</i>
0920	7479	<i>Paspalum distichum</i>
0920	7480	<i>Pelargonium tomentosum</i>
0920	7481	<i>Pericallis hybrida</i>
0920	7482	<i>Persicaria nepalensis</i>
0920	7485	<i>Phlomis russeliana</i>
0920	7486	<i>Phormium cookianum</i>
0920	7487	<i>Photinia davidiana</i>
0920	7488	<i>Phuopsis stylosa</i>
0920	7489	<i>Phygellius capensis</i>
0920	2992	<i>Phytolacca acinosa</i>
0920	7493	<i>Plagiobothrys scouleri</i>
0920	4305	<i>Pleioblastus pygmaeus</i>
0920	1550	<i>Populus x canadensis</i>
0920	7497	<i>Potentilla rivalis</i>
0920	7499	<i>Pratia angulata</i>
0920	7501	<i>Primula florindae</i>
0920	7502	<i>Primula japonica</i>
0920	7503	<i>Primula sikkimensis</i>
0920	7506	<i>Prunus incisa</i>
0920	7508	<i>Prunus pensylvanica</i>
0920	7518	<i>Pyracantha rogersiana</i>
0920	7520	<i>Quercus castaneaefolia</i>
0920	7527	<i>Reineckea carnea</i>
0920	4318	<i>Ribes odoratum</i>
0920	7530	<i>Rodgersia podophylla</i>

0920	4594	Rosa 'Hollandica'
0920	4595	Rosa luciae
0920	2556	Rosa multiflora
0920	4596	Rosa setigera
0920	3692	Rubus allegheniensis
0920	3706	Rubus canadensis
0920	3711	Rubus cockburnianus
0920	3727	Rubus elegantissimus
0920	3742	Rubus loganobaccus
0920	3756	Rubus parviflorus
0920	3759	Rubus pergratus
0920	3778	Rubus tricolor
0920	1740	Rumex brownii
0920	7553	Salix eriocephala
0920	7554	Salix udensis
0920	2307	Salix x pendulina
0920	2350	Salix x sepulcralis
0920	7560	Sambucus canadensis
0920	7561	Sanguisorba canadensis
0920	7569	Scilla siberica
0920	7571	Sedum confusum
0920	1880	Sedum lydium
0920	7573	Sedum nicaeense
0920	7575	Sedum spectabile
0920	7576	Sedum stoloniferum
0920	7578	Senecio grandiflorus
0920	7580	Senecio ovatus
0920	7583	Sidalcea malvaeflora
0920	7585	Sinacalia tangutica
0920	7586	Sisyrinchium laxum
0920	7587	Sisyrinchium striatum
0920	2540	Solanum physalifolium
0920	1946	Solanum sarachoides
0920	4341	Solidago rugosa
0920	7590	Sorbaria kirilowii
0920	2626	Sorbus croceocarpa
0920	7599	Sparaxis grandiflora
0920	7600	Spartina pectinata
0920	7601	Spiraea canescens
0920	7607	Symphytum caucasicum
0920	7642	Thalictrum delavayi
0920	7643	Thermopsis montana
0920	7652	Tropaeolum speciosum
0920	7653	Tulipa gesneriana
0920	7660	Verbascum bombyciferum
0920	7127	Watsonia borbonica
0920	2636	Xanthium ambrosioides
0920	7671	Yucca recurvifolia