

## Flower formulas for different plant families, mostly from Middle Russia

| Family                        | Formula   |
|-------------------------------|---|
| Acoraceae                     | $*P_6 A_6 G_{(3)}$  |
| Actinidiaceae                 | $*K_5 C_5 A_\infty G_{(\infty)}$  |
| Adoxaceae ( <i>Adoxa</i> )    | $*[K_2 C_4 A_{4 \times 2}] \vee [K_3 C_5 A_{5 \times 2}] G_{-(2)-}$     |
| Adoxaceae ( <i>Sambucus</i> ) | $*K_{(5)} C_{(5)} A_5 G_{-(2)-}$  |
| Aizoaceae ( <i>Mollugo</i> )  | $*P_{(5)} A_5 G_{(3)}$  |
| Alismataceae                  | $*K_3 C_3 A_{6 \vee \infty} G_\infty$                                   |
| Amaranthaceae                 | $*P_{3-5} A_{3-5} G_{(2)}$  |
| Amaryllidaceae                | $*P_{3+3} A_{3+3} G_{(\bar{3})}$  |
| Anacardiaceae                 | $*K_5 C_5 A_{10-5} G_{(1-3)}$   |
| Apocynaceae                   | $*K_{(5)} C_{(5)} A_5 G_2$  |
| Araceae ( <i>Calla</i> )      | $*A_6 G_{(3)}$  |
| Araliaceae                    | $*K_5 C_5 A_5 G_{(\bar{1-5})}$  |
| Aristolochiaceae              | $\uparrow P_1 (A_6 G_{(\bar{3})})$                                      |
| Asaraceae                     | $*P_{(3)} A_{12} G_{(\bar{3})}$   |
| Asparagaceae                  | $*P_{4 \vee (6)} A_{3+3} G_{(3)}$                                       |
| Balsaminaceae                 | $\uparrow K_{1,2} C_{1,2,2} A_{(5)} G_{(\bar{5})}$                      |
| Begoniaceae                   | $P_{2-6} G_{(\bar{3})} \vee P_{2 \vee [2+2]} A_\infty$                  |
| Berberidaceae                 | $*K_{3+3} C_{3+3} A_{3+3} G_{\underline{1}}$                            |
| Betulaceae                    | $P_{0 \vee 2 \vee (4)} A_{4-12} \vee P_{0 \vee (\infty)} G_{(\bar{2})}$ |
| Boraginaceae                  | $* \vee \uparrow K_{(5)} C_{(5)} A_5 G_{(2 \times 2)}$                  |
| Bromeliaceae                  | $*K_3 C_3 A_{3+3} G_{\bar{3}}$  |
| Butomaceae                    | $*K_3 C_3 A_9 G_{\underline{6}}$  |
| Cactaceae                     | $*K_\infty C_\infty A_\infty G_{(3)}$                                   |
| Callitrichaceae               | $A_1 \vee G_{(2 \times 2)}$   |

| Family                            | Formula  |
|-----------------------------------|--|
| Campanulaceae (most)              | $*K_{(5)}C_{(5)}A_5G_{(2\sqrt{3}\sqrt{5})}$  |
| Campanulaceae ( <i>Lobelia</i> )  | $\uparrow K_{(5)}C_{(2,3)}A_{(5)}G_{(3)}$  |
| Cannaceae                         | $K_3C_3S_{2\frac{1}{2}}A_{\frac{1}{2}}G_{(3)}$                                     |
| Caprifoliaceae                    | $*\vee \uparrow K_{(5)}C_{(5)}A_{5\vee 4}G_{(2)}$                                  |
| Caprifoliaceae ( <i>Linnaea</i> ) | $\uparrow K_{(5)}C_5A_{2,[3\vee 2]}G_{(2)}$  |
| Caryophyllaceae                   | $*K_{5\vee(5)}C_{5\vee 0}A_{5\vee 10}G_{(3\vee 5)}$                                |
| Celastraceae                      | $*K_{(4)}C_4A_4G_{(2)}$  |
| Ceratophyllaceae                  | $*P_{12}A_\infty \vee *P_{8-12}G_1$  |
| Chenopodiaceae                    | $*P_{3-5}A_{1-5}G_{(2)}$   |
| Cistaceae                         | $*K_{2+3}C_5A_\infty G_{(3)}$  |
| Commelinaceae                     | $K_3C_{1,2}A_3G_{(3)}$   |
| Compositae                        | $*\vee \uparrow K_{0\vee 5}C_{(5\vee 3)}A_{(5)}G_{(2)}$                            |
| Convolvulaceae                    | $*K_{(5\vee 4)}C_{(5\vee 4)}A_{5\vee 4}G_{(2)}$                                    |
| Cornaceae                         | $*K_{(4)}C_4A_4G_{(2)}$  |
| Crassulaceae                      | $*K_{(5-20)}C_{5-20}A_{10-40}G_{5-20}$   |
| Cruciferae                        | $*K_4C_4A_{2+4}G_{(2)}$  |
| Cucurbitaceae                     | $*K_{(5)}C_{(5)}A_{(5)} \vee *K_{(5)}C_{(5)}G_{(3-5)}$                             |
| Cyperaceae                        | $\uparrow \vee *P_{0-6}A_{3\vee 2}G_{(3\vee 2)}$                                   |
| Dipsacaceae                       | $\uparrow E_{(4\vee 8)}K_{(5\vee 3)\vee 0}C_{(4\vee 5)}A_4G_{(2)}$                 |
| Droseraceae                       | $*K_5C_5A_5G_{(3)}$  |
| Elaeagnaceae                      | $*P_{(2-4)}A_4G_{(2)}$   |
| Elatinaceae                       | $*K_{2-4}C_{2-4}A_{3-8}G_{(2-4)}$  |
| Empetraceae                       | $*K_3C_3A_3G_{(3)}$  |
| Ericaceae                         | $*K_{(4\vee 5)}C_{[(4\vee 5)]\vee 5}A_{4\vee 5+4\vee 5}G_{(4\vee 5)} \vee G_{(4)}$ |
| Ericaceae (Pyroloideae)           | $*K_{(5)}C_5A_{10}G_{(5)}$   |
| Ericaceae ( <i>Oxycoccus</i> )    | $*K_4C_{(4)}A_{4+4}G_{(4)}$  |
| Ericaceae ( <i>Monotropa</i> )    | $*K_{4\vee 5}C_{4\vee 5}A_{4\vee 5+4\vee 5}G_{(4\vee 5)}$                          |
| Ericaceae ( <i>Vaccinium</i> )    | $*K_{(5)}C_{(5)}A_5G_{(4)}$  |
| Euphorbiaceae                     | $A_1 \vee G_{(3)}$   |
| Fagaceae                          | $*P_{(5-9)}A_{5-10} \vee *P_\infty G_{(2)}$  |
| Gentianaceae                      | $*K_{(5\vee[4-7])}C_{(5\vee[4-7])}A_{4-7}G_{(2)}$                                  |
| Geraniaceae                       | $*K_5C_5A_{[5+5]\vee(5)}G_{(5)}$   |

| Family                                   | Formula   |
|--|---|
| Gramineae                                | $\uparrow P_{2\vee 3} A_{[3-1]\vee 6} G_{(2)}$  |
| Haloragaceae                             | $*K_4 C_4 A_{4+4} \vee *K_4 C_4 G_{\bar{4}}$  |
| Hippuridaceae                            | $\uparrow (A_1 G_{\bar{1}})$  |
| Hydrangeaceae ( <i>Philadelphus</i> )    | $*K_{4\vee 5} C_{4\vee 5} A_{\infty} G_{(\bar{4})}$   |
| Hydrocharitaceae ( <i>Hydrocharis</i> )  | $*P_{3+3} A_{3+3+3} \vee *P_{3+3} G_{\bar{6}}$  |
| Hydrocharitaceae ( <i>Stratiotes</i> )   | $*K_3 C_3 A_{\infty} G_{\bar{6}}$   |
| Hydrocharitaceae ( <i>Elodea</i> )       | $*K_{(3)} C_3 S_{1-3} G_{\bar{3}}$  |
| Hydrophyllaceae ( <i>Phacelia</i> )      | $*K_{(5)} C_{(5)} A_5 G_{(2)}$  |
| Hypericaceae                             | $*K_5 C_5 A_{3\times\infty} G_{(3)}$  |
| Iridaceae                                | $* \vee \uparrow P_{(3+3)} A_3 G_{(\bar{3})}$   |
| Juglandaceae                             | $P_{3-6} A_{3-40} \vee P_4 G_{(\bar{1})}$   |
| Juncaceae                                | $*P_{3+3} A_{[3+3]\vee 3} G_{(3)}$  |
| Labiatae                                 | $\uparrow K_{(5)} C_{(2,3)} A_{[2,2]\vee 2} G_{(2\times 2)}$                                |
| Lauraceae                                | $*P_{3+3} A_{3+3+3} G_{\underline{1}}$  |
| Leguminosae                              | $\uparrow K_{(5\vee 3)} C_{[1,2,(2)]\vee (1,2,2)} A_{[1,(4+5)]\vee (10)} G_{\underline{1}}$ |
| Lemnaceae                                | $A_1 \vee G_{\underline{1}}$  |
| Lentibulariaceae ( <i>Pinguicula</i> )   | $\uparrow K_{(2)} C_{(2)} A_2 G_{\underline{1}}$  |
| Lentibulariaceae ( <i>Lentibularia</i> ) | $\uparrow K_{(2)} C_{(2)} A_2 G_{(2)}$  |
| Liliaceae                                | $*P_{3+3} A_{3+3} G_{(3)}$  |
| Linaceae                                 | $*K_{4\vee 5} C_{4\vee 5} A_{4\vee 5} G_{(4\vee 5)}$  |
| Lythraceae ( <i>Peplis</i> )             | $*K_{(6+6)} C_{0\vee 6} A_6 G_{(2)}$  |
| Lythraceae ( <i>Lythrum</i> )            | $*K_{(6+6)} C_6 A_{[6+6]\vee 6} G_{(2)}$  |
| Magnoliaceae                             | $*P_{3+3+3+3} A_{\infty} G_{\infty}$  |
| Malvaceae                                | $*H_{0\vee 3-8\vee (3-8)} K_5 C_5 A_{(\infty)} G_{(\infty)\vee\infty}$                      |
| Melanthiaceae ( <i>Veratrum</i> )        | $*P_{3+3} A_{3+3} G_{\underline{3}}$  |
| Menyanthaceae ( <i>Nymphoides</i> )      | $*K_{(5)} C_{(5)} A_5 G_{(2)}$  |
| Menyanthaceae ( <i>Manyanthes</i> )      | $*K_{(5)} C_{(5)} A_5 G_{(2)}$  |
| Moraceae                                 | $P_4 A_4 \vee P_4 G_{(2)}$  |
| Musaceae                                 | $\uparrow P_{5,1} A_{5,1} \vee G_{\bar{3}}$   |
| Myrtaceae                                | $*K_{4-5} C_{4-5} A_{\infty} G_{\bar{2}}$   |
| Najadaceae                               | $P_1 A_1 \vee G_{\underline{1}}$  |
| Nitrariaceae                             | $*K_5 C_5 A_{5+5} G_{(3)}$  |

| Family                                      | Formula  |
|---|--|
| Nyctaginaceae                               | $P_5 A_{1-\infty} G_{\underline{1}}$   |
| Nymphaeaceae                                | $*K_{4-6} C_{\infty} A_{\infty} G_{(\infty)} \vee G_{-(\infty)-}$                                  |
| Oleaceae                                    | $*K_{(4)} C_{(4)} A_2 G_{(2)}$   |
| Oleaceae ( <i>Fraxinus</i> )                | $K_{0\vee 4} A_2 G_{(2)}$  |
| Onagraceae                                  | $*K_{2\vee 4} C_{2\vee 4} A_{2\vee[4+4]} G_{(\overline{2-5})}$                                     |
| Onagraceae ( <i>Chamaenerion</i> )          | $\uparrow K_4 C_{1,3} A_{4+4} G_{(\overline{2})}$  |
| Orchidaceae                                 | $\uparrow P_{3\vee[(2),1]+2,1} (A_{1\vee 2} G_{(\overline{3})})$                                   |
| Oxalidaceae                                 | $*K_5 C_5 A_{(5+5)} G_{(\overline{5})}$  |
| Paeoniaceae                                 | $K_5 C_5 A_{\infty} G_{(2-4)}$   |
| Palmae                                      | $*P_{3+3} A_{3+3} \vee G_3$  |
| Papaveraceae (Fumarioideae)                 | $\uparrow K_2 C_{(1,3)} A_{2\times 3} G_{(2)}$   |
| Papaveraceae (Papaveroideae)                | $*K_2 C_4 A_{\infty} G_{(2)}$  |
| Parnassiaceae                               | $*K_{(5)} C_5 S_5 A_5 G_{(3)}$   |
| Plantaginaceae                              | $*K_{4\vee 3} C_{(4)} A_4 G_{(2)}$   |
| Plumbaginaceae                              | $*K_{(5)} C_{(5)} A_5 G_{\underline{1}}$   |
| Polemoniaceae                               | $*K_{(5)} C_{(5)} A_5 G_{(3)}$   |
| Polygalaceae                                | $\uparrow K_{2,3} C_{([1,2]\vee[1,4])} A_{(8)} G_{(2)}$  |
| Polygalaceae                                | $\uparrow K_{2,3} C_{[1,2]\vee[1,4]} A_{(8)} G_{(2)}$  |
| Polygonaceae                                | $P_{(4\vee 5)\vee 3-6} A_{5-9} G_{(3)}$  |
| Portulacaceae ( <i>Montia</i> )             | $*K_{(2)} C_{(5)} A_3 G_{(3)}$   |
| Potamogetonaceae                            | $*P_4 A_4 G_{\underline{4}}$   |
| Primulaceae                                 | $*K_{(5\vee 4\vee 7)} C_{(5\vee 4\vee 7)} A_{5\vee 4\vee 7} G_{(\overline{5\vee 4\vee 7})}$        |
| Primulaceae ( <i>Trientalis</i> )           | $*K_7 C_7 A_7 G_{(\overline{7})}$  |
| Primulaceae ( <i>Hottonia</i> )             | $*K_5 C_{(5)} A_5 G_{(5)}$   |
| Ranunculaceae                               | $* \vee \uparrow [K_{3-15} C_{2-25}] \vee [P_{5-6}] A_{5-\infty} G_{\underline{1-\infty}}$         |
| Ranunculaceae ( <i>Batrachium</i> )         | $*K_5 C_5 A_{\infty} G_{\infty}$   |
| Ranunculaceae ( <i>Atragene</i> )           | $*K_4 C_4 A_{\infty} G_{\infty}$   |
| Resedaceae                                  | $\uparrow K_{4-6} C_{4-6} A_{10-\infty} G_{(3)}$   |
| Rhamnaceae                                  | $*K_{(4\vee 5)} C_{4\vee 5} A_{4\vee 5} G_{(2)}$   |
| Rosaceae                                    | $*K_{(5)} C_5 A_{\infty} G_{\underline{1}} \vee G_{(\overline{2-5})}$                              |
| Rosaceae (Rosoideae)                        | $*H_{(5\vee 4\vee 0)} K_{(5\vee 4)} C_{5\vee 4\vee 0\vee 6} A_{4-\infty} G_{\underline{1-\infty}}$ |
| Rosaceae ( <i>Alchemilla, Sanguisorba</i> ) | $*H_{0\vee 4} K_4 A_4 G_{\underline{1}}$   |

| Family                                   | Formula  |
|--|--|
| Rubiaceae                                | $*K_{0\vee(4\vee5)}C_{(4\vee3\vee5)}A_{4\vee3\vee5}G_{(2)}$                  |
| Rutaceae                                 | $*K_{4-5}C_{4-5}A_{[4-5]\vee[8-10]}G_{(4-5)}$                                |
| Salicaceae                               | $A_{3-20} \vee G_{(2)}$  |
| Santalaceae ( <i>Viscum</i> )            | $*P_{2+2}A_{2+2} \vee *P_{2+2}G_{(2)}$                                       |
| Santalaceae ( <i>Thesium</i> )           | $*P_{(5\vee4)}A_{5\vee4}G_{(2)}$   |
| Sapindaceae                              | $* \vee \uparrow K_5 C_5 A_{5-12} G_{(2)}$                                   |
| Sapindaceae ( <i>Acer negundo</i> )      | $*P_{(5)}A_{4-6} \vee *P_5 G_{(2)}$  |
| Saxifragaceae ( <i>Saxifraga</i> )       | $*K_5 C_5 A_{10} G_{(2)}$  |
| Saxifragaceae ( <i>Chrysosplenium</i> )  | $*P_{(4\vee5)}A_8 G_{(2)}$   |
| Saxifragaceae ( <i>Ribes</i> s.l.)       | $*K_{(5\vee4)}C_{5\vee4}A_{5\vee4}G_{(2)}$                                   |
| Scheuchzeriaceae ( <i>Triglochin</i> )   | $*P_3 A_3 P_3 A_3 G_{(3)}$   |
| Scheuchzeriaceae ( <i>Scheuchzeria</i> ) | $*P_{3+3}A_{3+3}G_3$   |
| Scrophulariaceae                         | $\uparrow \vee *K_{(4\vee5)}C_{([2,3]\vee4\vee5)}A_{[2,2]\vee2\vee5}G_{(2)}$ |
| Scrophulariaceae ( <i>Veronica</i> )     | $\uparrow K_{(4)}C_{(4)}A_2 G_{(2)}$   |
| Scrophulariaceae ( <i>Limosella</i> )    | $*K_{(5)}C_{(5)}A_{4\vee2}G_{(2)}$   |
| Solanaceae                               | $*K_{(5)}C_{(5)}A_5 G_{(2)}$   |
| Tamaricaceae                             | $*K_5 C_5 A_5 G_{(1)}$   |
| Theaceae                                 | $*K_5 C_5 A_\infty G_{(3)}$  |
| Thymelaeaceae ( <i>Daphne</i> )          | $*P_{(4)}A_8 G_{(2)}$  |
| Tiliaceae                                | $*K_5 C_5 A_\infty G_{(3)}$  |
| Trapaceae                                | $*K_4 C_4 A_4 G_{(2)}$   |
| Trilliaceae ( <i>Paris</i> )             | $*P_{4+4}A_4 G_{(4)}$  |
| Tropaeolaceae                            | $\uparrow K_{1,4}C_{2,3}A_8 G_{(3)}$   |
| Typhaceae                                | $P_{0\vee3-6}A_{3\vee(3)} \vee P_{0\vee3-6}G_{\underline{1}}$                |
| Typhaceae ( <i>Sparganium</i> )          | $*P_{3-6}A_3 \vee *P_{3-6}G_{\underline{1}}$                                 |
| Ulmaceae                                 | $*P_{(4-6)}A_{4-6}G_{\underline{1}}$   |
| Umbelliferae                             | $* \vee \uparrow K_5 C_5 A_5 G_{(2)}$  |
| Urticaceae                               | $*P_{4\vee5}A_{4\vee5} \vee *P_{4\vee0}G_{\underline{1}}$                    |
| Valerianaceae                            | $\zeta K_0 C_{(5-3)}A_3 G_{(2)}$   |
| Violaceae                                | $\uparrow K_5 C_{[1,4]\vee0}A_{2,3} G_{(3)}$                                 |
| Vitaceae                                 | $*K_5 C_{(5)}A_5 G_{(2)}$  |
| Zannichelliaceae                         | $\uparrow P_1 A_1 G_{\underline{3-5}}$                                       |

| Family         | Formula  |
|----------------|--|
| Zygophyllaceae | *K <sub>5</sub> C <sub>5</sub> A <sub>5+5</sub> G <sub>(5)</sub> |