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A THIRTY YEAR'S PHENOLOGICAL RECORD OF THE SPRING FLOWERING PLANTS OF HENRY COUNTY

H. E. JQUES AND DORIS HILLEARY

Each spring since 1915 a record has been kept of the date of appearance of the first fully opened flowers of our seed bearing plants found in Henry County. The spring of 1944 completed the thirtieth year of this record.

The record is the result of a Spring Flower Contest among the students of the botany classes at Iowa Wesleyan College. The competition is usually keen, (Jaques, 1931), so although we are not insured that the very first plant in bloom was recorded, we do have one of the earliest. These plants are not considered in bloom until pollen is found on the anthers. The plants included in this thirty year record are both the native and cultivated plants that live out of doors throughout the winter, or are raised from seed in open ground out of doors. Errors in identification are cut to the minimum since all flowers listed have been brought into the laboratory where their identification by the student may be checked again by an instructor. The largest list of flowers reported up to May 28 was in 1934 when 517 different plants were listed. The average year runs around 350 species.

The early and late appearance of these flowers may indicate whether our spring is earlier than usual or later than usual. The number of flowers appearing by a certain date makes a better basis than the appearance of a few isolated flowers. The spring of 1945 was considerably earlier than 1944. By March 28, 1945, sixty plants had been brought in. That is the most flowers ever turned in up to this date since the record was begun in 1915. From this large number we may conclude that 1945 is considerably earlier than that of most of the previous years. In 1938 there were 58 plants in bloom by that date. This indicates an early spring that year also. In contrast, may we show that last year, 1944, there were only 9 plants in bloom then. The latest springs for the blooming of plants were in 1915, 1916, 1940, and 1941 in which there were 3, 4, 5, and 5 flowers in bloom, respectively, by March 28.

From Table A it is interesting to note the variation in days over the thirty year period as to the appearance of these common plants. It is to be noted that the common dandelion (*Taraxicum officinale*) and the white maple (*Acer saccharinum*) show a much greater variation in appearance than the later plants that follow. It is to be presumed that this is probably caused by the unstable weather in the early months of the year during which these flowers make their appearance. By late April and May the weather has reasonably settled. This, possibly, may be the cause for less variation in the appearance of these plants.

Table 1 shows the date of appearance of the first flowers of some

representative species, Dodds, Ellsworth, and Jaques (1934) previously published a phenological study of Henry County for the years 1915-1934. In a thirty year period the common chickweed (*Stellaria media* (L) Cyrill) takes honors as being the earliest plant to bloom. In 1926 one was found on January 8. In the same year the common dandelion (*Taraxicum officinale* Weber) and the nodding chickweed (*Cerastium nutans* Raf.) came next in appearance being found on January 9. In 1935 the common chickweed was found on January 9, one day later than its earliest appearance, as well as one day later than the day on which it became the earliest flower to bloom as recorded on our records, (Poulter 1923). The dandelion and chickweed usually mark the beginning of the blooming of our plants. On these early dates the dandelion is the prince of flowers as it holds its golden head to the sky. However, it literally turns to a pauper a few weeks later as they become so numerous and obnoxious on our lawns. It is not until they come peeping through again in the dead of winter that we appreciate this pretty little flower.

IOWA WESLEYAN COLLEGE,
MT. PLEASANT, IOWA.

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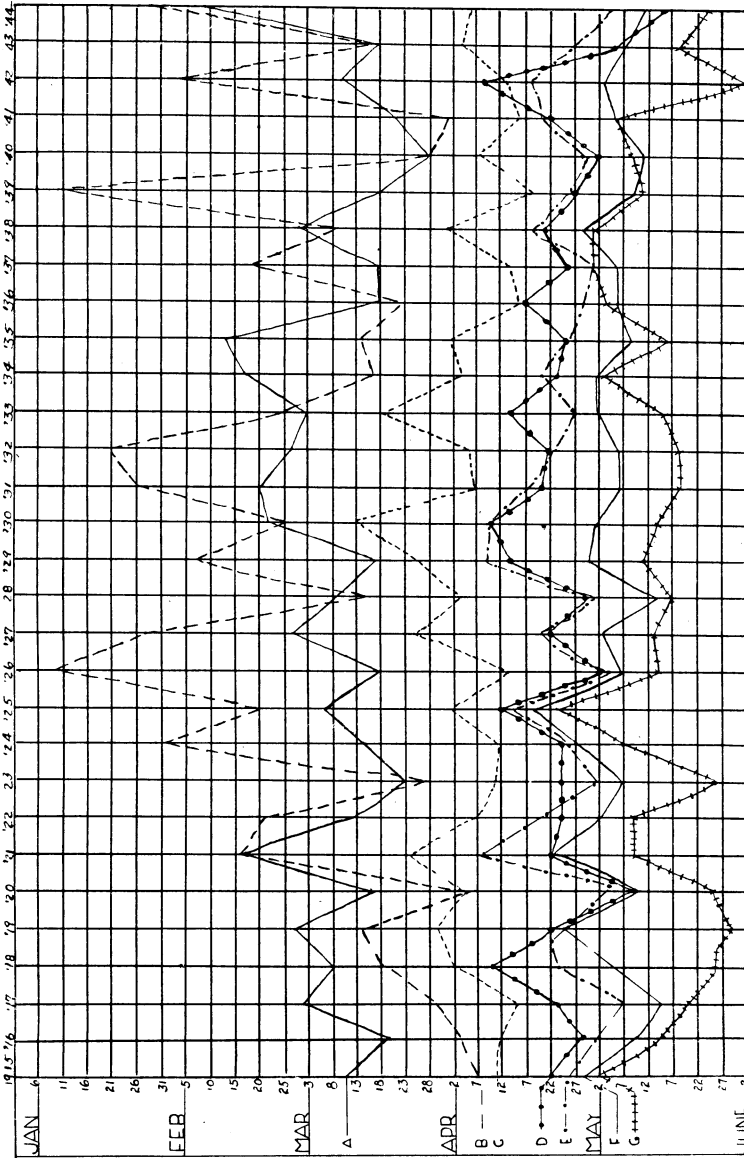


FIG. 1. SHOWING VARIATION IN BLOOMING OF SOME COMMON PLANTS

- | | |
|----------------------------------|---------------------------------|
| A. <i>Acer saccharinum</i> | E. <i>Phlox divaricata</i> |
| B. <i>Taraxacum officinale</i> | F. <i>Aquilegia canadensis</i> |
| C. <i>Sanguinaria canadensis</i> | G. <i>Asparagus officinalis</i> |
| D. <i>Cercis canadensis</i> | |

Scientific name	Common name	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	Average 1935-44	Average 1915-44
<i>Galanthus elwesii</i>	Giant snowdrop	3-4	3-6	3-30	3-2	3-20	4-2	3-5	3-9	3-25	3-2	3-11	3-6
<i>Acer saccharinum</i>	White maple	3-14	3-18	3-18	3-2	3-18	3-29	3-21	3-10	3-16	2-9	3-13	3-9
<i>Taraxacum officinale</i>	Common dandelion	3-14	3-17	2-18	3-8	1-10	3-29	4-1	2-3	3-15	1-28	2-17	3-6
<i>Populus tremuloides</i>	American aspen	3-19	3-24	4-14		3-27	4-1	4-3	3-30	3-24	4-11	4-1	3-25
<i>Ulmus americana</i>	American elm	3-21	3-25	4-6	3-18	3-23	4-2	4-4	3-25	3-31	4-11	3-28	3-24
<i>Trillium nivale</i>	Dwarf white trillium	3-25	3-17	4-9	3-19	3-25	4-1	4-4	4-14	3-30	3-23	3-29	3-28
<i>Hepatica triloba</i>	Round-leaved liverwort	3-26	3-28	4-13	3-21	3-27	4-1	4-4	4-14	4-2	4-3	4-1	3-31
<i>Capsella bursa-pastoris</i>	Shepherd's purse	3-5	3-7	3-24	3-19	3-31	3-28	3-31	3-24	3-31	4-20	3-26	3-29
<i>Dicentra culcullaria</i>	Dutchman's breeches	4-1	4-15	4-17	3-24	4-13	4-15	4-17	4-14	4-8	4-13	4-11	4-9
<i>Acer negundo</i>	Box elder	4-5	4-15	4-19	3-28	4-24	4-15	4-15	4-14	4-10	4-24	4-13	4-11
<i>Sanguinaria canadensis</i>	Bloodroot	4-1	4-15	4-14	3-26	4-24	4-8	4-21	4-14	4-8	4-11	4-11	4-6
<i>Anemone thalictroides</i>	Rue anemone	4-6	3-30	4-19	3-23	4-24	4-17	4-15	4-4	4-22	4-13	4-12	4-10
<i>Claytonia virginica</i>	Spring beauty	4-5	4-9	4-20	3-28	4-24	4-9	4-15	4-14	4-10	4-13	4-12	4-11
<i>Nepeta hederacea</i>	Ground Ivy	4-12	4-15	4-22	4-19	4-21	4-9	4-23	4-16	4-20	5-2	4-16	4-13
<i>Amelanchier canadensis</i>	Service berry	4-15	4-22	4-23	3-26	4-24	4-22	4-17	4-20	4-20	4-24	4-19	4-17
<i>Ranunculus abortivus</i>	Small flowered buttercup	4-25	4-16	4-19	4-11	4-24	4-24	4-17	4-16	4-27	4-25	4-20	4-17
<i>Erythronium albidum</i>	Fawn lily	4-16	4-17	4-20		4-25	4-16	4-15	4-15	4-21	4-24	4-19	4-17
<i>Fragaria virginiana</i>	Virginia strawberry	4-25	4-20	4-23	4-12	4-28	5-3	4-23	4-30	4-28	5-3	4-25	4-20
<i>Polemonium reptans</i>	Greek valerian			4-23	4-11	4-25	4-30	4-16	4-20	4-21	4-20	4-21	4-20
<i>Phlox divaricata</i>	Blue phlox	4-26	4-16	4-26	4-21	4-27	5-3	4-13		5-4	5-15	4-25	4-22
<i>Trillium recurvatum</i>	Prairie wake-robin	4-25	4-20	4-26		5-1	4-25	4-21	4-27	4-28	5-2	4-26	4-25
<i>Cercis canadensis</i>	Redbud	4-26	4-28	4-29	4-19	4-25	4-29	4-21	4-20	4-27	5-4	4-26	4-27
<i>Aesculus glabra</i>	Ohio buckeye	4-29	4-30	4-26	4-20	5-1	4-30	4-21	4-27	5-3	5-9	4-29	4-26
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	4-25	5-4	5-3	4-25	5-8	5-6	4-29	4-28	5-16	5-5	5-3	5-4
<i>Aquilegia canadensis</i>	Wild columbine	5-9	5-5	5-5	4-28	5-8	5-10	5-5	5-4	5-6	5-15	5-7	5-4
<i>Potentilla canadensis</i>	Five finger	5-13	5-6	5-7	5-4	5-9	5-9	5-5	5-20	5-17	5-15	5-11	5-10
<i>Malva rotundifolia</i>	Common mallow		5-7	5-11	4-29	5-16	5-20	5-26	6-2		5-22	5-17	5-12
<i>Asparagus officinalis</i>	Garden asparagus	5-16	5-9	5-6	5-6	5-15	5-14	5-5	6-2	5-9	5-23	5-14	5-13
<i>Trifolium repens</i>	White clover	5-16	4-30		4-25	4-29	5-9	5-7		5-10	5-22	5-7	5-11
<i>Hydrophyllum virginianum</i>	Virginia water leaf	5-16	5-12	5-10	5-2	5-17		5-15		5-19	5-22	5-14	5-16
<i>Cynoglossum officinale</i>	Common hound's tongue	5-16	5-12	5-19	5-14	5-23		5-12				5-14	5-17
<i>Melilotus officinalis</i>	Yellow sweet clover	5-27	5-12			5-18		5-14	5-21			5-22	5-21
<i>Robina pseudo-acacia</i>	Common locust		5-14		5-9	5-22		5-14	5-15		5-23	5-16	5-19