

Proceedings of the Iowa Academy of Science

Volume 36 | Annual Issue

Article 33

1929

Heights of Weeds

L. H. Pammel

C. M. King

Copyright ©1929 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Pammel, L. H. and King, C. M. (1929) "Heights of Weeds," *Proceedings of the Iowa Academy of Science*, 36(1), 221-231.

Available at: <https://scholarworks.uni.edu/pias/vol36/iss1/33>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

HEIGHTS OF WEEDS

L. H. PAMMEL AND C. M. KING

The height to which weeds grow, depends upon geographical location, soil, and particularly precipitation, or available moisture.

Weeds attain maximum growth within the area of maximum distribution.

Weeds tend to become larger southward, in the everglades of Florida, height of small ragweed exceeds that of the plant in Iowa.

The manuals usually state the variation in height, of plants. It occurred to us that it might be of interest to record the heights of different weeds under different soil conditions; and this is done for a large number of plants, especially those found in Iowa.

In some instances, a great variation is shown; we find that greater ragweed varies from $9\frac{1}{2}$ feet to 16 feet (manuals say 18 feet). This difference is due to type of soil and available moisture. The tallest of the ragweeds occur on bottom soil.

Soil is a most important factor in determination of size in weeds; for instance in case of the greater ragweed which is uniformly much smaller on the prairie soils than on the alluvial silty soil. This is probably because less water is available in the former case.

The height of this weed varied from 8 feet to 10 feet on the average prairie soils this year, 1928.

The amount of rainfall also is an important factor. In order that a comparison can be made, we have added the precipitation for the growing season, at the several different points.

We have made use of the valuable publications, "Soil Survey of Iowa" by Stevenson, Brown, and their co-workers, in designating the soils.

We are therefore indebted to these reports for the soil types given in this paper.

GRAMINEAE. GRASSES

Andropogon scoparius Michx. Beard Grass.

Shenandoah. Marshall silt loam.

7 ft. 3 in.; 6 ft. 8 in. L. H. P.

Digitaria sanguinalis (L.) Scop. Crabgrass.

Ames. Prairie. Carrington loam.

4 ft.; 5 ft.; 5 ft. L. H. P.

- Panicum capillare* L. Old-witch grass.
 Ames. Prairie. Carrington loam.
 3 ft. 4 in.; 3 ft. 5 in.; 2 ft. 9 in. L. H. P.
 Red Oak. Marshall silt loam.
 3 ft. 10 in.; 4 ft. 4 in.; 3 ft. 4 in. L. H. P.
- Panicum dichotomiflorum* Michx. Profuse Panicum.
 Nevada. Carrington loam.
 3 ft. 8 in.; 3 ft. 9 in.; 3 ft. 9 in.; 3 ft. 7 in. L. H. P.
 Polk County. Sarpy loam.
 3 ft. 3 in.; 3 ft. 11 in. L. H. P.
- Echinochloa crus-galli* (L) Beauv. Barnyard grass.
 Greene County. Carrington loam.
 5 ft. 6 in.; 6 ft.; L. H. P.
 Polk County. Sarpy loam.
 5 ft. 5 in.; 5 ft. 10 in. L. H. P.
 Luana. Tama silt loam.
 5 ft. 4 in.; 5 ft. 6 in. L. H. P.
 Prairie City. Muscatine silt loam.
 6 ft.; 5 ft. 4 in.; L. H. P.
 Boone County. Sarpy loam.
 5 ft. L. H. P.
 Polk County. Sarpy loam.
 6 ft.; 5 ft. 6 in. L. H. P.
 McGregor. Tama silt loam.
 6 ft.; 6 ft. 1 in. L. H. P.
 Ames. Prairie. Carrington loam.
 6 ft.; 5 ft. 4 in.; 5 ft. 9 in. L. H. P.
 N. W. Missouri, near Hamburg, Iowa. Bremer silt loam.
 7 ft. 6 in.; 7 ft. 4 in. L. H. P.
- Setaria viridis* (L) Beauv. Green Foxtail.
 Polk County. Sarpy loam.
 5 ft.; 4 ft. 8 in.; 5 ft. 6 in. L. H. P.
 Colfax. Bottoms. Clinton silt loam.
 5 ft.; 5 ft. 2 in. L. H. P.
- Setaria verticillata* (L) Beauv. Whorled Foxtail.
 Ames. Carrington loam.
 4 ft.; 4 ft. 2 in.; 3 ft. 10 in. L. H. P.
 Boone County. Sarpy soil.
 3 ft.; 3 ft. 9 in.; 2 ft. 11 in. L. H. P.
- Setaria glauca* (L) Beauv. Pigeon Grass.
 Polk County. Sarpy loam.
 4 ft. 6 in.; 5 ft. 8 in.; 5 ft. 10 in. L. H. P.
 Greene County. Carrington loam.
 6 ft. 6 in. L. H. P.
 Ames. Prairie. Carrington loam.
 5 ft. 1 in.; 5 ft. 7 in.; 5 ft. 4 in. L. H. P.
 N. W. Missouri near Hamburg, Iowa. Bottoms. Bremer silt loam.
 5 ft. 1 in.; 4 ft. L. H. P.
 Luana. Tama silt loam.
 3 ft. 4 in.; 3 ft. 5 in. L. H. P.
- Setaria italica* (L) Beauv. Millet.
 Oskaloosa. Woodland. Lindley silt loam.
 7 ft. 6 in.; 8 ft. L. H. P.
- Cenchrus carolinianus* Walt. Sandbur.
 Muscatine County. Buckner coarse loam.
 2 ft. 8 in.; 2 ft. 6 in. L. H. P.
 Polk County. Sarpy loam.
 2 ft. 10 in.; 2 ft. 8 in.; 2 ft. 9 in. L. H. P.
- Muhlenbergia mexicana* (L) Trin. Mexican Dropseed.
 Ames. Carrington loam.
 4 ft. 8 in.; 4 ft. 2 in. L. H. P.

- Spartina cynosuroides* (L.) Roth. Salt Reed grass.
Petersen. Low grounds. Cass silt loam.
7 ft.; 8 ft.; 7 ft. 6 in. L. H. P.
- Bouteloua oligostachya* (Nutt) Torr. Mesquite Grass.
Cherokee. Marshall silt loam.
1 ft. 4 in.; 1 ft. 6 in.; 1 ft. 2 in. L. H. P.
- Bouteloua curtipendula* (Michx) Torr. Mesquite Grass.
Cherokee. Drift. Marshall silt loam.
6 ft. 6 in.; 2 ft. 5 in. L. H. P.
- Eragrostis megastachya* (Koeler) Link.
Boone County. Sarpy soil.
3 ft. 2 in.; 3 ft. 4 in. L. H. P.
- Bromus tectorum* (L.) Downy. Brome.
Ames. Carrington loam.
1 ft. 4 in.; 16 in. Thelma Hawkins.
- Agropyron repens* (L.) Beauv. Quack Grass.
Ames. Prairie. Carrington loam.
4 ft. 4 in.; 4 ft.; 3 ft. 10 in.; 4 ft. 2 in. L. H. P.
Luana. Tama silt loam.
4 ft. 4 in.; 3 ft. 9 in.; 4 ft. 8 in. L. H. P.
- Hordeum jubatum* (L.) Squirrel-tail Grass.
Nevada. Prairie. Carrington loam.
2 ft.; 2 ft. 4 in.; 2 ft. 6 in. L. H. P.

URTICACEAE. NETTLE FAMILY

- Cannabis sativa* (L.) Hemp.
Dennison. Bottoms. Wabash silt loam.
11 ft.; 11 ft.; 10 ft. 5 in. I. Butler.
Polk County. Sarpy loam.
8 ft. 8 in.; 9 ft. L. H. P.
Ames. Bottoms. Wabash silt loam.
11 ft. 6 in. L. H. P.
- Urtica gracilis* Ait. Wood Nettle.
Pine Creek. Lindley loam.
8 ft. 6 in.; 9 ft. L. H. P.
- Laportea canadensis* (L.) Gaud.
Ames. Carrington loam.
5 ft. 6 in.; 5 ft. 4 in. L. H. P.
Boone. Sarpy loam.
5 ft.; 5 ft. 2 in.; 5 ft. 4 in. L. H. P.

POLYGONACEAE. SMARTWEEDS

- Polygonum maritimum* L. Maritime Smartweed.
Shenandoah. Nishnabotna. Marshall silt loam.
3 ft. 6 in.; 3 ft. 8 in.; 3 ft. 2 in. L. H. P.
- Polygonum aviculare* L. Dooryard Knotgrass.
Cherokee. Drift soil. Marshall silt loam.
4 ft. L. H. P.
- Polygonum lapathifolium* L. Nodding Smartweed.
N. W. Missouri near Hamburg. Bottoms. Bremer silt loam.
5 ft. 2 in.; 5 ft. 4 in.; 4 ft. 9 in. L. H. P.
- Polygonum pennsylvanicum* L. Pennsylvania Smartweed.
Muscatine. Silt loam.
6 ft. 2 in.; 6 ft.; 5 ft. 5 in. L. H. P.
Polk County. Sarpy loam.
5 ft. L. H. P.
Boone County. Bottom. Sarpy loam.
4 ft. 10 in. L. H. P.
Hamburg. Bremer silt loam.

- 5 ft. 2 in. L. H. P.
 Red Oak. Marshall silt loam. Prairie.
 6 ft. L. H. P.
 Nevada. Carrington loam.
 4 ft. 10 in.; 4 ft. 8 in.; 4 ft. 2 in. L. H. P.
 Luana. Tama silt loam.
 4 ft.; 3 ft. 10 in. L. H. P.
 Monona. Tama silt loam.
 5 ft.; 5 ft. 8 in. L. H. P.
 Decorah.
 3 ft. 6 in.; 3 ft. 8 in. L. H. P.
Polygonum orientale L. Prince's Feather.
 Ames. Prairie. Carrington loam.
 10 ft. 10 in.; 11 ft. 10 in.; 10 ft. 8 in. L. H. P.
Polygonum Persicaria L. Lady's Thumb.
 Ames. Carrington loam.
 3 ft. 2 in.; 3 ft. L. H. P.
Polygonum Muhlenbergii (Meis) Wats. Tanweed.
 Cherokee. Bottoms. Marshall silt loam.
 3 ft. 11 in. L. H. P.
Polygonum Convolvulus L. Black Bindweed.
 Cherokee. Marshall silt loam.
 2 ft. 11 in.; 2 ft. 10 in.; 2 ft. 1 in. L. H. P.
 Boone County. Sarpy loam.
 3 ft. 2 in.; 4 ft. 4 in.; 5 ft.; 6 ft. 8 in. L. H. P.

CHENOPODIACEAE GOOSEFOOT FAMILY

- Kochia Scoparia* (L.) Schrad. Mexican Fireweed, Summer Cypress.
 Nevada. Prairie soil. Carrington loam.
 3 ft. 9 in.; 3 ft. 7 in.; 3 ft. 8 in.; 3 ft. 9 in. L. H. P.
Chenopodium album L. Lamb's Quarters.
 Ames. Prairie. Carrington loam.
 7 ft.; 6 ft. 10 in.; 7 ft. L. H. P.
 Polk County. Sarpy loam.
 6 ft. 2 in. L. H. P.
 Nevada. Prairie. Carrington loam.
 7 ft. 2 in.; 7 ft. 4 in.; 7 ft. 3 in. L. H. P.
 McGregor. Tama silt loam.
 7 ft. 6 in.; 7 ft. 4 in.; 6 ft. 4 in. L. H. P.
 Monona. Tama silt loam.
 5 ft.; 5 ft. 2 in. L. H. P.
Atriplex patula var *hastata* (L.) Gray. Orach.
 Nevada. Prairie. Carrington loam.
 3 ft.; 3 ft. 1 in.; 2 ft. 11 in. L. H. P.

AMARANTHACEAE. AMARANTH FAMILY

- Amaranthus retroflexus* L. Green Amaranth.
 Prairie City. Muscatine silt loam.
 5 ft. 6 in.; 6 ft. 4 in. L. H. P.
 Nevada. Prairie. Carrington loam.
 5 ft. 2 in.; 5 ft. 10 in. L. H. P.
Amaranthus hybridus L. Pigweed.
 Hamburg. Bottoms. Lamoure. Silty clay.
 10 ft. L. H. P.
 Red Oak. Marshall silt loam.
 6 ft. L. H. P.
Amaranthus blitoides Wats. Prostrate Pigweed.
 Greene County. Carrington loam.
 Diameter of spread. 6 ft. L. H. P.

- Denison bottom. Wabash silt loam.
 Diameter of spread. 9 ft. L. H. P.
Acnida tuberculata Moq. Water Hemp.
 Greene County. Carrington loam.
 6 ft. 6 in.; 6 ft. 4 in.; 6 ft. 5 in. L. H. P.
 Boone County. Sarpy soil.
 3 ft. 7 in.; 4 ft. L. H. P.
 Shenandoah. Nishnabotna Bottoms. Marshall silt loam.
 13 ft.; 12 ft. 6 in.; 8 ft. 6 in. L. H. P.

NYCTAGINACEAE, FOUR O'CLOCK FAMILY

- Oxybaphus nyctagineus* (Michx.) Sweet.
 Cherokee. Drift. Marshall silt loam.
 3 ft. 6 in.; 3 ft. 2 in.; 3 ft. 5 in. L. H. P.
 Ames. Low ground. Wabash silt loam.
 4 ft. 6 in. Thelma Hawkins.
Oxybaphus linearis (Pursh). Robinson. Wild Four O'Clock.
 Cherokee. Drift. Marshall silt loam.
 1 ft. 9 in.; 2 ft. L. H. P.

CARYOPHYLLACEAE, PINK FAMILY

- Silene stellata* (L.) Ait. f. Starry Champion.
 Cherokee. Marshall silt loam.
 3 ft. 2 in.; 3 ft.; 3 ft. 1 in. L. H. P.

RANUNCULACEAE, CROWFOOT FAMILY

- Thalictrum dasycarpum*. Fisch. and Lall. Meadow Rue.
 Cherokee. Woods. Clarion loam. (Steep phase).
 8 ft. 3 in.; 8 ft.; 8 ft. 2 in. L. H. P.

CRUCIFERAE, MUSTARDS

- Lepidium virginicum* L. Peppergrass.
 Boone County. Sarpy loam.
 2 ft.; 1 ft. 6 in. 1 ft. 9 in. L. H. P.
Lepidium apetalum. Willd. Peppergrass.
 Ames. Prairies. Carrington loam.
 2 ft.; 2 ft. 4 in. L. H. P.
 Boone County. Sarpy loam.
 1 ft. 6 in.; 2 ft. L. H. P.
Capsella Bursa-pastoris (L.) Medic. Sheperd's Purse.
 Ames. Pasture. Prairies. Carrington loam.
 1 ft.; 10 in. Thelma Hawkins.
Brassica juncea (L.) Cosson. Indian Mustard.
 Boone County. Sarpy loam.
 5 ft. 6 in. L. H. P.

ROSACEAE, ROSE FAMILY

- Geum macrophyllum* Willd. Avens.
 Ames. Woods. Carrington loam.
 2 ft. 10 in.; 3 ft. L. H. P.

LEGUMINOSAE, PEA FAMILY

- Cassia Chamaecrista* L. Partridge Pea.
 Shenandoah. Nishnabotna. Marshall silt loam.
 4 ft.; 3 ft. 6 in. L. H. P.

- Desmodium illinoense* Gray. Tick Trefoil.
 Cherokee. Marshall silt loam.
 4 ft. 11 in.; 4 ft. 2 in. L. H. P.
Lathyrus venosus Muhl. Wild Pea.
 Cherokee. Marshall silt loam.
 2 ft. 10 in.; 2 ft. 6 in. L. H. P.

EUPHORBIACEAE. SPURGE FAMILY

- Euphorbia marginata* Pursh. Snow-on-the-mountain.
 Cherokee. Marshall silt loam.

BALSAMINACEAE. JEWEL WEED FAMILY

- Euphorbia Preslii* Guss. Spurge.
 Boone County. Sarpy loam.
 1 ft.; 1 ft. 6 in.; 1 ft. 4 in. L. H. P.
Euphorbia maculata L. Milk Purslane.
 Cherokee. Marshall silt loam.
 Diameter of spread. 3 ft.; 2 ft. 6 in.; 1 ft. 6 in.; 3 ft. L. H. P.
Impatiens biflora Walt. Jewelweed.
 Boone. Sarpy loam.
 4 ft.; 3 ft. 11 in.; 3 ft. 6 in. L. H. P.

MALVACEAE. MALLOW FAMILY

- Abutilon Theophrasti* Medic Indian Mallow.
 Eddyville. Bottoms. Wabash silty clay loam.
 7 ft. 6 in. L. H. P.
 Nevada. Prairie. Carrington loam.
 4 ft. 2 in.; 4 ft. 8 in. L. H. P.
 Missouri (South of Hamburg, Iowa) Bremer silt loam.
 7 ft. 10 in. L. H. P.

ONAGRACEAE. EVENING PRIMROSE FAMILY

- Oenothera biennis* L. Evening Primrose.
 Cherokee. Drift Marshall silt loam.
 5 ft.; 6 ft.; 5 ft. 6 in. L. H. P.
 Klemme. Prairie. Carrington loam.
 4 ft. 4 in.; 4 ft. L. H. P.
Gaura biennis L. Gaura.
 4 ft. 10 in. L. H. P.
 Boone County. Beaver. Clarion loam.
 3 ft. 2 in.; 2 ft.; 3 ft. 1 in. L. H. P.

UMBELLIFERAE. PARSNIP FAMILY

- Heraclium lanatum* L. Cow Parsnip.
 Ames. Carrington loam.
 5 ft. 10 in.; 5 ft. 8 in. L. H. P.

ASCLEPIADACEAE. MILKWEED FAMILY

- Asclepias syriaca* L. Common Milkweed.
 Ames. Carrington loam.
 4 ft. 7 in.; 5 ft. L. H. P.
 Boone County. Sarpy soil.
 3 ft. 18 in.; 3 ft. 2 in. L. H. P.

CONVOLVULACEAE. MORNING-GLORY FAMILY

- Convolvulus sepium* L. Hedge Bindweed.
 Ames. Prairie. Carrington loam.

14 ft.; 15 ft.; 14 ft.; 16 ft. L. H. P.
Boone County. Sarpy loam.
6 ft.; 6 ft. 2 in.; 5 ft. 11 in. L. H. P.

BORAGINACEAE. BORAGE FAMILY

Cynoglossum virginianum L. Wild Comfrey.
Boone. Sarpy loam.
3 ft. 11 in.; 3 ft. 10 in. L. H. P.

VERBENACEAE. VERBENA FAMILY

Verbena urticaefolia L. White Vervain.
Ames. Bottoms. Wabash silt loam.
5 ft. 2 in.; 8 ft. 4 in. L. H. P.
Decorah.
6 ft. 10 in.; 6 ft. L. H. P.
Verbena stricta Vent. Hoary Vervain.
Story County. Upland. Carrington loam.
3 ft. 2 in.; 3 ft. 3 in. L. H. P.
Ames. Pastures. Carrington loam.
3 ft. 2 in. Thelma Hawkins.
Boone County. Beaver. Clarion loam.
3 ft.; 2 ft. 4 in.; 2 ft. 8 in.; 3 ft. 2 in. L. H. P.

LABIATAE. LABIATES

Teucrium canadense L. Wood Sage.
Ames. Prairie. Carrington loam.
4 ft. 2 in.; 4 ft.; 3 ft. 10 in. L. H. P.
Ames. Prairie. Carrington loam.
4 ft. Thelma Hawkins.
Monarda mollis L. Horsemint.
Cherokee. Upland. Marshall silt loam.
4 ft. 6 in. L. H. P.

SOLANACEAE. NIGHTSHADE FAMILY

Solanum nigrum L. Common Nightshade.
Ames. Prairie. Garden. Carrington loam.
4 ft. 2 in.; 4 ft.; 3 ft. 11 in. Thelma Hawkins.
Solanum rostratum Dunal. Buffalo Bur.
Ames. Roadsides. Carrington loam.
3 ft.; 2 ft. 6 in.; 3 ft. 4 in. Thelma Hawkins.
Datura Stramonium L. Jimson Weed.
Colfax. Carrington fine silt loam.
6 ft. 6 in.; 6 ft. L. H. P.

SCROPHULARIACEAE. FOX-GLOVE FAMILY

Verbascum Thapsus L. Mullein.
Scrophulariaceae, Verbascum Thapsus L. Mullein.
Luana. Tama silt loam.
8 ft. 11 in.; 6 ft. 4 in.; 6 ft. 6 in. L. H. P.

PLANTAGINACEAE. PLANTAIN FAMILY

Plantago Rugelii L. Plantain.
Boone County. Sarpy soil.
2 ft.; 1 ft. 10 in. L. H. P.

CAMPANULACEAE. BELLFLOWER FAMILY

- Campanula americana* L. Tall Bellflower.
Ames. Woodland. Carrington silt loam.
5 ft. 3 in.; 5 ft.; 4 ft. 11 in. L. H. P.

COMPOSITAE. SUNFLOWER FAMILY

- Grindelia squarrosa* (Pursh). Dunal.
Boone County. Beaver. Clarion loam.
3 ft. 2 in.; 2 ft. 10 in. L. H. P.
- Solidago speciosa* Nutt. Showy Goldenrod.
Cherokee. Drift. Marshall silt loam.
3 ft. 4 in.; 3 ft. 2 in. L. H. P.
- Solidago serotina* Ait. Prairie Goldenrod.
Cherokee. Bottoms. Marshall silt loam.
6 ft. 1 in.; 6 ft. 2 in.; 6 ft. L. H. P.
Polk County. Sarpy loam.
8 ft.; 8 ft. 6 in. L. H. P.
Boone. Sarpy loam.
6 ft. 8 in.; 6 ft. L. H. P.
- Aster sericeus* Vent. Silvery Aster.
Cherokee. Drift. Marshall silt loam.
1 ft. 11 in.; 1 ft. 10 in. L. H. P.
- Aster salicifolius* Ait. Willow-leaved Aster.
Cherokee. Bottoms. Marshall silt loam.
6 ft. 1 in. L. H. P.
- Erigeron annuus* (L.) Pers. Daisy Fleabane.
Ames. Prairies. Carrington loam.
6 ft. 4 in. Thelma Hawkins.
Luana. Tama silt loam.
3 ft.; 3 ft. 2 in.; 3 ft. 4 in. L. H. P.
- Erigeron canadensis* L. Horseweed.
Nevada. Prairie. Carrington loam.
6 ft.; 6 ft. 6 in.; 7 ft. L. H. P.
Boone. Sarpy loam.
8 ft. 4 in.; 7 ft. 11 in.; 8 ft. 6 in.; 8 ft. 5 in. L. H. P.
- Silphium perfoliatum* L. Cup Plant.
Monroe. Prairie Bottoms. Clinton silt loam.
8 ft.; 8 ft. L. H. P.
- Iva xanthifolia* Nutt. Marsh Elder.
Shenandoah. Nishnabotna Bottom. Marshall silt loam.
6 ft.; 7 ft.; 8 ft. L. H. P.
- Ambrosia trifida* L. Great Ragweed.
Ames. Carrington loam.
7 ft. 8 in. Thelma Hawkins.
Ames. Prairie. Carrington loam.
10 ft.; 9 ft. 6 in. L. H. P.
Boone County. Sarpy soil.
8 ft.; 9 ft.; 10 ft. L. H. P.
N. W. Missouri near Hamburg, Iowa. Bremer silt loam.
16 ft.; 15 ft.; 16 ft.; 15 ft.; 14 ft. 6 in.; 15 ft. L. H. P.
Polk County. Sarpy loam.
12 ft.; 11 ft.; 12 ft. L. H. P.
Cherokee. Bottoms. Marshall silt loam.
8 ft. 5 in.; 8 ft. 6 in.; 8 ft. L. H. P.
Prairie City. Prairie. Muscatine silt loam.
10 ft. 5 in.; 10 ft. 6 in. L. H. P.
Brownsville, Texas. Low ground.
16 ft.; 14 ft.; 15 ft.; 13 ft.; 10 ft. L. H. P.
Decorah Tama silt loam.

- 10 ft.; 8 ft. 10 in.; 13 ft. 4 in. L. H. P.
 Dallas, Texas.
 16 ft.; 14 ft.; 15 ft.; 16 ft.; 14 ft. L. H. P.
 Matamoros, Mex. 16 ft.; 16 ft.; 15 ft. L. H. P.
- Ambrosia artemisiifolia* Small Ragweed.
 Polk County. Sarpy loam.
 6 ft.; 5 ft. 11 in. L. H. P.
 Monona. Tama silt loam.
 4 ft. 7 in.; 5 ft. L. H. P.
 Ames. Prairie. Carrington loam.
 4 ft.; 4 ft. 2 in.; 4 ft. 10 in.; 4 ft. 6 in. L. H. P.
 Red Oak. Marshall silt loam.
 4 ft. 7 in.; 4 ft. 2 in.; 4 ft.; 4 ft. 8 in.; 5 ft.; 4 ft. 11 in. L. H. P.
 N. W. Missouri south of Hamburg, Iowa. Bremer silt loam.
 5 ft.; 5 ft. 4 in.; 4 ft. 8 in. L. H. P.
 Ames. Prairie. Carrington silt loam.
 6 ft. 6 in.; 3 ft. 8 in. Thelma Hawkins.
- Xanthium commune* Britton Cocklebur.
 Nevada. Prairie. Carrington loam.
 4 ft. 3 in. L. H. P.
 Boone. Sarpy loam.
 6 ft. 2 in.; 6 ft. 6 in.; 6 ft. 10 in. L. H. P.
 Ames. Prairie. Carrington loam.
 6 ft. L. H. P.
 Polk County. Sarpy loam.
 5 ft. 4 in. L. H. P.
 N. W. Missouri south of Hamburg, Iowa.
 Bremer silt loam.
 4 ft. 8 in. L. H. P.
 Boone County. Sarpy soil.
 3 ft.; 2 ft.; 3 ft. 10 in. L. H. P.
- Helianthus annuus* L. Sunflower.
 Decorah. Tama silt loam.
 10 ft.; 8 ft. 10 in.; 9 ft. 6 in.; 10 ft. 1 in.; 11 ft. 2 in. L. H. P.
 Cherokee. Pastures. Marshall silt loam.
 9 ft.; 9 ft. 6 in. L. H. P.
 Ames. Prairie. Carrington loam.
 7 ft. 2 in.; 6 ft. 6 in.; 11 ft.; 9 ft. L. H. P.
 Shenandoah. Marshall silt loam.
 11 ft.; 6 ft. 4 in.; 12 ft. 2 in. L. H. P.
 N. W. Missouri near Hamburg, Iowa. Bremer silt loam.
 12 ft.; 9 ft.; 11 ft. 6 in. L. H. P.
- Helianthus Maximiliani* Schrad. Maximilian's Sunflower.
 Boone County. Ogden. Prairie. Clarion loam.
 3 ft. 4 in.; 2 ft. 4 in.; 4 ft. L. H. P.
 Ames. Prairie. Carrington loam.
 7 ft. 2 in.; 8 ft.; 7 ft. 8 in. L. H. P.
 Polk County. Sarpy loam.
 6 ft.; 7 ft. 8 in. L. H. P.
- Helianthus tuberosus* L. Jerusalem Artichoke.
 Cherokee. Bottoms. Marshall silt loam.
 5 ft. 9 in.; 6 ft.; 7 ft.; 8 ft. 1 in. L. H. P.
 Boone County. Sarpy soil.
 7 ft. 2 in.; 3 ft. 6 in.; 8 ft. 7 in. L. H. P.
 Nevada. Prairie. Carrington loam.
 6 ft.; 7 ft.; 6 ft. 11 in. L. H. P.
 Greene County. Carrington loam.
 8 ft.; 8½ ft. L. H. P.
- Bidens frondosa* L. Beggar-ticks.
 Klemme. Drift. Carrington silt loam.
 4 ft. 6 in.; 4 ft. 4 in. L. H. P.

- Boone County. Sarpy loam.
3 ft.; 3 ft. 1 in.; 3 ft. 2 in. L. H. P.
- Helenium autumnale* L. Sneezeweed.
Ames. Old river course. Wabash silt loam.
4 ft. 9 in.; 5 ft. L. H. P.
- Artemisia ludoviciana* Nutt. White Sage.
Cherokee. Drift. Marshall silt loam.
4 ft. 5 in. L. H. P.
- Cirsium lanceolatum* (L.) Hill. Bull Thistle.
Boone County. Ogden. Prairie. Clarion loam.
3 ft. 8 in.; 4 ft.; 3 ft. 6 in. L. H. P.
Boone County. Beaver. Clarion loam.
5 ft. 8 in.; 5 ft. 4 in. L. H. P.
- Cirsium discolor* (Muhl) Spreng. Field Thistle.
Cherokee. Bottoms. Marshall silt loam.
8 ft. 8 in. L. H. P.
Boone County. Ogden. Prairie. Clarion loam.
9 ft. 2 in. L. H. P.
Ames. Bottoms. Wabash silt loam.
8 ft. 6 in.; 7 ft. 3 in.; 8 ft. 6 in.; 7 ft. 3 in. L. H. P.
Ames. Prairie. Carrington loam.
7 ft. 3 in.; 8 ft. 2 in.; 8 ft. 6 in. L. H. P.
Ames. Upland prairie. Carrington loam.
7 ft. 4 in.; 7 ft. 6 in. Thelma Hawkins.
Polk County. Sarpy loam.
9 ft.; 8 ft.; 8 ft. 8 in. L. H. P.
- Cirsium iowense* (Pammel) Fernald. Common Thistle.
Boone County. Ogden. Prairie. Clarion loam.
6 ft.; 5 ft. 10 in.; 5 ft. 6 in. L. H. P.
- Cirsium arvense* (L.) Scop. Canada Thistle.
Ames. Carrington loam.
4 ft. 6 in.; 4 ft.; 4 ft. 6 in. Thelma Hawkins.
Boone County. Beauv. Clarion loam.
5 ft. 4 in.; 5 ft.; 5 ft. 2 in. L. H. P.
- Cichorium Intybus* Chicory.
Boone County. Sarpy loam.
2 ft. 6 in.; 3 ft.; 2 ft. 4 in.; 4 ft.; 3 ft.; 3 ft. 2 in.; 3 ft. 3 in. L. H. P.
- Lactuca scariola* L. Prickly Lettuce.
Ames. Yards. Carrington loam.
5 ft. 6 in.; 6 ft. Thelma Hawkins.
Boone. Sarpy loam.
6 ft. 8 in.; 6 ft. 2 in. L. H. P.
- Lactuca canadensis* L. Wild Lettuce.
Ames. Carrington loam.
6 ft. 10 in.; 6 ft. 8 in.; 7 ft. L. H. P.
Boone County. Sarpy loam.
7 ft. 7 in.; 7 ft. L. H. P.
Luana. Tama silt loam.
6 ft.; 6 ft. 8 in. L. H. P.
- Lactuca floridana* (L.) Gaertn. Wild Blue Lettuce.
Ames. Carrington loam.
6 ft.; 5 ft. 11½ in. L. H. P.

Pammel and King: Heights of Weeds

Temperature and Rainfall Data for Iowa for Growing Season, 1928

	MARCH		APRIL		MAY		JUNE		JULY		AUGUST		AVE. TEMPERATURE FOR GROWING SEASON	TOTAL PRECIPITATION FOR GROWING SEASON
	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES	AVE. TEMPERATURE IN DEGREES	PRECIPITATION IN INCHES		
Cherokee	38.2*	1.43*	41.7	1.01	60.7	4.32	62.4	2.31	72.5	2.41	72.1	2.75	57.9	14.23
Petersen (Spencer)	36.4	1.55	40.8	2.12	62.0	3.91	63.6	5.45	74.0	1.48	72.6	6.04	58.2	20.55
Klemme (Northwood)	34.4	1.05	40.2	2.40	60.8	3.68	62.7	6.03	71.6	2.27	68.9	11.92	56.4	27.35
Jefferson	38.6	1.07	43.2	2.62	61.6	3.39	63.5	5.44	72.9	3.87	73.0†	7.35†	58.8	23.74
Denison	40.0	.83	43.8	1.63	62.8	4.07	64.4	4.51	73.6	2.66	72.8	3.55	59.6	17.25
Ames (and Nevada)	40.4	.53	45.3	1.88	63.6	1.91	66.0	6.38	74.5	3.28	73.7	5.74	63.9	19.72
Monroe (and Prairie City)	40.6	1.87	45.8	2.26	63.6	3.60	65.4	6.50	74.2	5.26	72.0‡	8.81	60.3	28.30
Colfax (Grinnell)	39.4	1.76	43.0	2.42	62.2	2.32	64.0	4.39	72.9	3.25	72.4	6.48	58.6	20.62
Eldora (Iowa Falls)	37.2	1.55	43.2	3.84	61.8	2.00	63.1	6.57	73.0	3.34	71.4	7.26	58.2	24.56
Hamburg (Glenwood)	43.3	.58	47.4	1.24	64.4	2.34	66.2	5.75	75.4	4.72	75.3	5.08	62.0	19.71
Oskaloosa (and Eddyville)	40.4	2.18	45.4	2.70	62.9	1.32	64.9	8.54	73.6	7.16	72.2	6.59	59.9	28.49
Average temperature for Iowa	38.9		44.3		62.6		64.5		73.9		72.7		69.5	
Precipitation for Iowa		1.44		2.24		2.47		5.38		4.43		6.42		22.38

* Le Mars.

† Guthrie Center

‡ Baxter.