



Extension Extra

ExEx 8020
May 1985
Plant Science

COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

Characteristics and Seeding Rates of some Crops Grown in South Dakota

by Robert G. Hall, Extension Agronomist-Crops

Certain seed characteristics relate to seeding rates for various crops you might be planning to plant as alternative crops this year.

Information on growth type, bushel weight, seed count, and days to germination information was obtained from Principles of field crop production, 3rd. ed. Macmillan Co., NY. Small grain and flax seed count data and all seeding rate (pure-live-seed) information was obtained from either Cooperative Extension Service publications or from the Plant Science Department staff at SDSU.

Keep in mind that the seed count or number of seeds per pound for each crop is an average.

There are, for example, variations in wheat seed size depending on variety and year grown. In crops like sorghum or sorghum-sudan there may be large variations in seed size among hybrids. In large-seeded crops like soybean, hybrid corn, and sunflower, many seed companies report the number

of seeds per pound or seeds per unit on seed bags.

In the absence of actual seed counts, the table on the back of this sheet will prove useful for calculating the amount of seed needed for planting.

The seeding rates are reported as a range of values. In some cases soil types, temperature, precipitation, and intended use of the crop can affect the seeding rate from one region to another.

The days to germination data were obtained under laboratory conditions. Therefore, these figures really indicate relative differences in germination under ideal conditions. Under field conditions the number of days to germination will likely be longer than indicated.

Type of growth indicates whether the crop is an annual (A), winter annual (W), biennial (B), or perennial (P).

CHARACTERISTICS AND SEEDING RATES OF
SOME CROPS GROWN IN SOUTH DAKOTA.

CROP-TYPE OF GROWTH	BUSHEL WEIGHT (LBS.)	SEED COUNT (NO./LB.)	DRILL SEEDING RATE (LBS./ACRE)	ROW SEEDING RATE (LBS./ACRE)	DAYS GERMINATION
ALFALFA-P*	60	227,000	10-15	1-3	7
BARLEY-A	48	13,620	48-96		7
BEAN, DRY(SMALL SEED)-A	60	2,500		40	8
BEAN, DRY(LARGE SEED)-A	60	1,300		60-80	8
BIRDSFOOT TREFOIL-P	60	363,200	8-12		7
BLUEGRASS, KENTUCKY-P	14	218,000	15-25		28
BROMEGRASS, SMOOTH-P	14	136,200	15-20		14
BUCKWHEAT, COMMON-A	48	21,000	36-60		6
BUCKWHEAT, TARTARY-A	48	27,000	24		7
CHICKPEA-A	60	910		120-150	7
CLOVER, ALSIKE-P	60	681,000	6-8		7
CLOVER, LADINO-P	60	863,000	5-7		10
CLOVER, RED-P	60	272,000	8-12		7
CLOVER, SWEET(WHITE)-A, B	60	259,000	12-15		7
CLOVER, SWEET(YELLOW)-B	60	259,000	30-45		7
CLOVER, WHITE-B	60	681,000	5-7		10
CORN, FIELD-A	56	1,360		11-17	7
CORN, POP-A	56	3,200		4-7	7
CORN, SWEET-A	50	1,820		12-18	7
CROWN VETCH-P	60	136,200	10-15		14
FESCUE, RED-P	14-30	409,000	15-40		21
FIELD PEA (SMALL SEED)-A	60	5,000		90-120	8
FIELD PEA (LARGE SEED)-A	60	3,600		120-180	8
FLAX-A	56	82,500	40-56		7
LUPIN, WHITE-A	60	1,500	150	150	7
MANGEL-A		21,800		6-8	10
MILLET, FOXTAIL-A	50	213,400	15		10
MILLET, PEARL-A	56	86,260	16-20	4-6	7
MILLET, PROSO-A	56	81,720	20		7
MUSTARD, YELLOW-A	56	90,000	12		7
MUSTARD, BROWN, ORIENT.-A	50	180,000	6		7
OATS, COMMON-A	32	13,620	60-80		10
ORCHARD GRASS-P	14	654,000	6-10		18
RAPE, OILSEED-A	50	156,630	3-4		7
RAPE, TURNIP-B		243,000		4-8	7
REED CANARY GRASS-P	44-48	544,800	8-12		21
RYE, COMMON-WA	56	18,160	90-160		7
RYEGRASS, PERENNIAL-P	24	227,000	25-30		14
SAFFLOWER-A	45	10,000	20-25		14
SORGHUM, GRAIN (MILO)-A	56	15,000		3-6	10
SORGHUM, SORGO-A	50	22,700		4-8	10
SORGHUM-SUDAN, HYBRID-A	50	17,500	15-20	8-15	10
SOYBEAN, SMALL SEED-A	60	3,800	52-54	40-46	8
SOYBEAN, MEDIUM SEED-A	60	2,500	78-80	60-70	8
SUDAN GRASS-A	40	54,500	15-25	12-15	10
SUNFLOWER-A	24	5,900		3-4	7
SWITCHGRASS-P		370,000	6-8		28
TIMOTHY-P	45	1,135,000	8-12		10
TURNIP-B	55	243,000	1-2		7
VETCH, COMMON-A	60	8,630	40-80		10
VETCH, HAIRY-A, WA	60	16,340	20-40		14
WHEAT, COMMON-A, WA	60	16,000	60-120		7
WHEAT, DURUM-A	60	11,800	60-90		10
WHEATGRASS, CR. (FAIRWAY)-P	20-24	324,160	10-12		14
WHEATGRASS, CR. (STANDARD)-P	20-24	193,000	10-12		14
WHEATGRASS, INTERMEDIATE-P	16-20	73,600	10-12		28
WHEATGRASS, SLENDER-P	20-24	147,500	10-12		14
WHEATGRASS, WESTERN-P	20-24	106,700	12-20		35
WILD RYE, CANADA-P		118,500	10-12		21
WILD RYE, RUSSIAN-P		157,000	8-10		14

*A=annual, B=biennial, P=perennial, and WA=winter annual plants

This publication and others can be accessed electronically from the SDSU
College of Agriculture & Biological Sciences publications page, which is at
<http://agbiopubs.sdstate.edu/articles/ExEx8020.pdf>



Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the USDA. Larry Tidemann, Director of Extension, Associate Dean, College of Agriculture & Biological Sciences, South Dakota State University, Brookings. SDSU is an Affirmative Action/Equal Opportunity Employer (Male/Female) and offers all benefits, services, and educational and employment opportunities without regard for ancestry, age, race, citizenship, color, creed, religion, gender, disability, national origin, sexual preference, or Vietnam Era veteran status.