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# Government of the Province of Saskatchewan

DEPARTMENT OF AGRICULTURE

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Rules to Observe and Precautions to take in Growing

## PROFITABLE CROPS

ON THE

### DRIER LANDS OF SASKATCHEWAN

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1. Determine to put more and better work on fewer acres rather than so little work on the surface of so many acres.

2. Regard the summerfallow as being at the root of the matter. Without summerfallow all is uncertainty, and crops are at the mercy of the weather from week to week. With the summerfallow there is a reasonable security that, apart from hail, a crop will be harvested every year.

3. Summerfallow at least one-third of your cultivated land each year, and thereby secure peace of mind. If no crops are sown in the drier areas except on properly prepared summerfallow breaking and second crop thereafter, general crop failure will be unknown and more grain will be actually harvested one year with another.

4. Regard the storing up of moisture in the soil as being the chief purpose of the summerfallow, and so that this purpose may be fulfilled, observe the next eight rules.

#### SUGGESTIONS REGARDING THE SUMMERFALLOW

5. Land that is to be summerfallowed should be ploughed shallow the fall before if it contains native creeping rooted grasses (quack, sweet, couch grasses, etc.), and other perennials as so much of our newer land does. Shallow ploughing in a dry time will check these perennials and insure the germination of weed seeds and shelled grain in the early spring before the real ploughing of the fallow is begun.

6. If time does not permit of, or the condition of the land does not warrant light fall ploughing, **double disc land that is to be fallowed**, preferably in the fall, or else in the spring before ploughing.

**7. Plough the summerfallow early.** Begin to plough it as soon as the crop is sown, or as soon after that, as the land has been disced if it has not previously been lightly ploughed or disced as recommended in rules 5 and 6. Do not delay starting the plough until weed seeds covered by spring discing have germinated. This germination might be dependent upon rains that may not come for a month. Best results can only come from early ploughing.

**8. Plough the summerfallow deeply.** This refers to the main ploughing in the early summer, not to the fall ploughing. Plough deeper each time, as power permits, until a depth of at least six or eight inches is reached.

**9. Harrow the summerfallow (and every other field you plough) immediately after the plough or at the same operation** no matter when the ploughing is done. This applies to nearly all ploughing except sod land. Evaporation of moisture starts immediately land, even dry land, is ploughed. Evaporation can only be checked by a soil mulch—a loose layer of dry soil on the surface of the land—and harrowing is the quickest and cheapest way of getting such a condition. Use a packer if you have one. If you haven't got one, don't buy one on credit, but instead, make still more use of the harrow.

**10. Aim to complete the ploughing and working down of the summerfallow before June 20.**

**11. Don't start breaking until the summerfallow is all ploughed and worked down.** It is better to properly and sufficiently cultivate the land already broken than to neglect it and break more to be neglected in its turn.

**12. Keep the summerfallow black and free from crust** throughout the growing season by the timely use of the harrow on it. Always harrow with one or more of three objects in view: either to work the land down and create a mulch, or to destroy young weeds, or to restore a mulch (granular condition of the surface soil).

## SUGGESTIONS REGARDING SPRING WORK

**13. First thing in the spring harrow all the land you are going to sow except land that you are afraid will drift.** This will help it to "warm up," will conserve moisture, enable you to get on to it sooner with the drill and do better work.

**14. Use the cleanest and best seed you can get, and clean it some more after you get it, if it isn't already quite clean and a uniform sample.**

**15. Treat all your seed with formalin** or in the case of wheat with bluestone, if you prefer. The only excuse for loss of yields and grades from smut is carelessness. Smut of wheat, oats and barley is entirely preventable, and the wilt of flax can largely be controlled by formalin, thanks to science and experiment.

**16. Don't overload your land with seed.** Thin seeding is drought resistant. The less moisture is in a field the less seed it should have because the fewer plants it can support and bring to maturity. The best rates of seeding for all areas in south-western and central western Saskatchewan, not subject to harvest frosts, are approximately as follows:

New land or summerfallow	Second crop on new land or after fallow
WHEAT—One to one and a half bushels to acre....	Three pecks per acre
OATS—One and a quarter to one and three-quarter bushels to acre.....	One bushel per acre
BARLEY—One and a half bushels to acre.....	One bushel per acre
FLAX—Twenty to thirty pounds to acre.....	One peck per acre

**Thick seeding promotes early maturity, but thin seeding in the absence of fall frost gives larger returns,** and is therefore good dry farming practice. Don't accept the fallacy that thick seeding conserves moisture, because more plants are provided and the ground is shaded. Everyone recognises that the thinner the vegetation is permitted to grow on the summerfallow the more moisture is conserved. The opposite is equally true; the thicker the vegetation is made to grow by overseeding the more quickly the moisture content of the soil is exhausted.

**17. Put the seed down into the moisture, and not merely to it,** even though this puts the seed deeper than you have been accustomed to in more humid lands. In any case, put the seed in at least  $2\frac{1}{2}$  inches. You will thus insure more uniform and immediate germination. Visit the drill at frequent intervals if you are not driving it yourself.

**18. Harrow after the drill** on every field you sow. Regard harrowing after the drill and after the plough as **part** of the operations of ploughing and drilling.

**19.** When you think a field has been **sufficiently harrowed** go over it once or twice more. The extra strokes are the easiest way to make sure of extra bushels.

**20. When grain is up a day or two,** with straight upright blades, on some field in good tilth, experiment on two or three acres by **giving it a lengthwise stroke of the ordinary drag harrow** (light or lever preferred) to eradicate weeds and renew the soil mulch. Then watch and study results.

You can't be **sure** of crops in dry lands except by putting plenty of intelligent and timely work on every acre. These methods are intended for farmers on the clay and clay loam lands of the districts mentioned, having retentive subsoil.

## TEN DRY FARMING COMMANDMENTS

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1. Thou shalt have no other occupation than farming.
2. Thou shalt fallow thy land every third year, being careful to plough it both early and deeply.
3. Thou shalt cultivate thy fallow and not allow weeds or any other thing that is green to grow thereon, or winds to blow through it, for in such way the moisture which thy fallow should conserve will be wasted and thy days will be nothing but labour and sorrow.
4. Thou shalt not despise the harrow, but shalt use it even whilst thou plougest, and shalt place thy chief reliance upon it thereafter, whether in early spring, late spring, midsummer or autumn.
5. Thou shalt sow good seed early and down into the moisture, lest peradventure it cometh not up betimes. He who soweth his seed in dry soil casteth away many chances of reaping.
6. Thou shalt not overload thy dry land farm with seed, even as the merciful man doth not overload his ox or his ass. Thin seeding best withstandeth the ravages of drought and hot winds.
7. Thou shalt keep on thy dry farm such kinds and numbers of horses, cattle, sheep, pigs and poultry as the water supply maketh possible, and thou canst grow pasture, fodder, roots and grain for. Thus shalt thou be protected against adversity, and thus shalt thou give thy children and children's children cause to call thee blessed, inasmuch as thou didst not too greatly dissipate in thy lifetime the fertility stored in thy soil through many thousands of years.
8. Thou shalt not live unto thyself alone, but shalt join the Grain Growers' Association, the agricultural society in thy district or any like minded organisation that is good. Through these thou shalt work unceasingly for the welfare of thy district and the upbuilding of Saskatchewan agriculture.
9. Thou shalt study thy dry land farm and its problems unceasingly, and ponder on ways and means whereby its fruitfulness may be increased, keeping always in memory the fact that not alone by speeches and resolutions, but also by intelligent and timely hard work shall production be increased and the economic salvation of thy country be wrought.
10. Thou shalt not covet thy neighbour's big farm. Thou shalt not covet thy neighbour's big four, nor his mortgage, nor his worry, nor his hurry, nor anything that is thy big neighbour's.

Remember these dry farming commandments to keep them wholly.

Preserve this leaflet and discuss its contents. Additional copies will gladly be supplied free of charge upon request. Address: Department of Agriculture, Regina.