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## Timely Farm Suggestions

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### Ideas From the Field

ONE may, under favorable weather conditions, sometimes make a good crop of oats sown late in the fall or early in the spring, but such cases are comparatively rare. At the Alabama Experiment Station, as a result of 17 years' tests, the fall-sown oats yielded more than twice what the spring-sown oats produced.

In the northern half of the Cotton Belt oats should be sown during September and in the Southern half during October. Later sowings may do well some years, but early sowings usually do better. If the oats are to be used for pasture it is imperative that they be sowed early if much pasturage is expected.

Those who sow oats with crimson clover for hay should use some Red Rust-proof variety instead of Turf or grazing oats, because the Red Rust-proof oats mature earlier than the Turf and fit better the time at which the crimson clover matures. Crimson clover matures two or three weeks earlier than Turf oats, and Red Rust-proof oats, while maturing a little later than crimson clover, are in fair condition for hay making when the crimson clover is at the proper stage for making the best hay.

Now that there are drills that will sow three rows at one time there is no excuse for failing to sow oats by the open-furrow method in those sections where oats winter-kill. There are few sections where oats do not winter-kill more or less, and the winter-killing is increased by late sowing and poor drainage. In the open-furrow method the seed are deposited at the bottom of a furrow or trench and are covered over lightly. The rains and frost cause the sides of the furrow to wash down around the roots which prevents the plants being heaved out of the ground by freezing and thawing, while the oats being in the furrow are protected to a considerable extent. The open-furrow method prevents winter-killing, leaves the ground in good condition for a spring harrowing, and larger yields are produced.

The fall sowing of oats could be practiced much farther north, where they now frequently winter kill, if the open-furrow method of sowing were practiced. Winter killing is also more likely to occur on poorly drained land and when the oats are sowed late.

Several instances have been reported to us of crimson clover reseeding itself this year. The explanation is simple. The seed ripened and fell to the ground in May, but owing to the dry season these seed, or a large part of them, failed to germinate until August. Generally the seed germinate in June or early in July and over the greater part of the Cotton Belt, at least, this is so early that the young plants are killed by the hot or dry weather of July and August. Those who have secured good stands of crimson clover this year from the spring crop of seed dropped on the ground are indeed fortunate, for the price of seed is high and the supply so small that many cannot get them at any price. But the fact that the crimson clover has successfully reseeded itself this exceptional year should not lead any one to expect similar results here in the Cotton Belt next year, or any

average season. Five seasons out of six the seed ripened and dropped in May or early in June will germinate and the young plants be killed before fall.

Oats receive no cultivation after they are sowed, except that fall-sown oats are harrowed in the spring by a small portion of our growers. For this reason, if for no other, the advice to prepare the land well before sowing the oats should appeal to cotton and corn growers, who expend much effort cultivating those crops after they are planted. Because disking the land has in some cases been proved a better method of preparing it for oats than breaking it with a plow, is no excuse for sowing oats without thorough preparation. It is probable that disking is only better than plowing and disking when the entire preparation of the land is delayed until just before sowing; but however this may be, it is possible to thoroughly prepare the land with disk and smoothing harrows alone, if it is in proper condition—was broken well earlier in the season, is reasonably free from coarse material on the surface, and is well supplied with humus so that it has not become hard and dead.

We are often told the oat crop in the South is not profitable. Whether it is profitable or not depends on the yield made and whether the crop is followed the same season by cowpeas, soy beans, peanuts, lespedeza or red clover. If only the oat crop is grown, which occupies the land only from September to May and leaves it idle from May to September, the best growing season, the crop, taken in all its results is not a profitable one. But if we grow an oat crop when the land would otherwise be idle, it is a profitable crop and should be much more largely grown.

If those who say they cannot afford to grow oats, because of the difficulty and expense of preparing the land for cowpeas or soy beans, which must follow the oat crop the same season to make the land earn a fair profit, will try lespedeza, or even red clover, they may find they can get a legume crop after the oats without any additional cultivation of the land. We are convinced that red clover sowed with the oats in the fall will give a splendid crop of clover after the oats, on all our clay, clay-loam and loam soils if they are rich enough to produce a profitable crop of corn or cotton and are treated to an application of crushed limestone.

How does a crop of oats followed by legumes compare with the corn and cotton crops?

40 bushels oats, at 50c.....	\$20.00
1 ton oat straw.....	5.00
1 1/2 tons lespedeza hay.....	22.50
Total.....	\$47.50
40 bushels oats, at 50c.....	\$20.00
1 ton oat straw.....	5.00
25 bushels soy beans, at \$1.....	25.00
1 1/2 tons soy bean straw, at \$10.....	15.00
Total.....	\$65.00
30 bushels corn, at 75c.....	\$22.50
1 1/2 tons corn stover, at \$7.....	10.50
Total.....	\$33.00
300 pounds lint cotton, at 12c.....	\$36.00
600 pounds cotton seed, at \$20 a ton.....	6.00
Total.....	\$42.00

When fertilizers are used on oats apply 200 to 300 pounds of acid phosphate in the fall when the oats are sowed and then top-dress with 75 to 100 pounds of nitrate of soda per acre

early next spring soon after the oats have started their spring growth.

### THE POTASH SITUATION

The European War if Long Continued Will Probably Result in a Shortage of Potash and Higher Prices—How to Use it More Economically

WHAT effect will the European war have on the supply of potash required by the Southern farmer? This question is of special interest to the Southern farmer and more particularly to the farmers of the Southern States east of the Mississippi, where potash is most largely used. The spring season is when most fertilizers are used and the supplies now on hand in this country are not likely to be large. Of course, some fertilizers are used in the fall and the supply is probably adequate for immediate needs, but if the war continues until after the first of the year there is almost certain to be a shortage for our real needs.

Naturally all potash now in the hands of the manufacturers of mixed fertilizers will be carefully saved for use in their mixed goods and it is doubtful if any of these concerns will sell potash until a further supply is insured. It is also likely that the tendency will be to reduce the percentage of potash in all mixed fertilizers which may be made from now on to the end of the war. In short, the situation is such that potash is apt to be short of the demand and consequently higher in price.

In view of these facts the farmers of the South should carefully study their needs for potash, in order to avoid its use where not greatly needed, or at least, avoid the waste of it, which we fear has often occurred in the past.

If this shortage in the supply of potash leads to the more intelligent use of it throughout the South this evil of the war will not be an entirely unmixed one for us, because we have probably used potash less wisely than any other plant food. In fact, we have put potash in our mixed fertilizers for use on land where the overwhelming evidence obtained by experiment station tests and soil analyses show we do not, or at least, should not, need potash. In Mississippi, Tennessee, parts of Alabama and the states west of these the evidence obtained from soil analyses and experiment station tests point strongly to the conclusion that potash is not needed as a plant food for general field crops, and possibly is not generally profitable for any class of crops. In the Southeastern States, on the other hand, field tests generally show a need for potash and that it pays to use it more or less liberally on practically all crops. But even in those sections soil analyses show that many of the heavier or clay loam, or clay soils have rather large supplies of potash. But that these supplies already in the soil are not available in many cases for feeding the crops in sufficient quantities is indicated by the field tests and experience of the farmers. Potash, especially in the form of kainit, has also proved of value in lessening the effects of rust on cotton in practically all sections where it has been tested.

These seem to be the facts of the situation, and we must meet them in the best way possible. In the first place, no potash should be used in mixed or other fertilizers in the territory, as above outlined, where there is serious doubt as to the need of potash or of its profitable use even at the prices current in past years. If the laws will not permit this they should at once be modified to meet the existing condition. Second, as far as it is

possible, cover crops should be sowed, especially on all lands where there is now known to be a fair supply already in the soil—the clay lands generally—that they may be plowed under in the spring in the hope that their decay will render available additional quantities of the potash already in the soil. Third, as stated, the manufacturers of mixed fertilizers should and probably will reduce the percentage of potash in their ready-mixed goods, in order to make the supplies now on hand go as far as possible.

The situation, while serious, is not nearly so bad as would be the case were our supplies of nitrogen and phosphorus to be cut off and we may hope that by using the supply of potash now on hand, with care and intelligence, the conditions will not become really serious before the war closes and our importation of potash from Germany can be resumed. In this connection it would be well if our Government would consider seriously the development of our own supplies of potash in the West as well as the providing of a merchant marine to carry our commerce abroad, which if we possessed, would not now be of value in solving the shortage of potash.

### Proportion of Oat Grains to Straw

PROF. Duggar in his "Southern Field Crops" says that "In crops yielding 15 to 30 bushels per acre, there is usually about the same weight of straw as of threshed grain; as the yield increases the percentage of straw increases." In yields ranging from 25 to 40 bushels per acre the writer's observations lead him to believe that the straw usually weighs 1 1/4 to one and one-half times the weight of the grain. Northern experiment stations have found the proportions of straw and grain to vary from four of straw to one of grain down to one and two-tenths of straw to one of grain. Hunt in his "Cereals in America" says: "In general, the more favorable the season, the more fertile the soil, and the later the variety or the later the seeding, the greater is the proportion of straw to grain."

The kind and amount of fertilizers and the variety also influence these proportions.

THE following gives the digestible nutrients and plant foods in 100 pounds of oats and in corn and corn stover, for comparison:

	Protein lbs.	Carbo-hydrates lbs.	Fat lbs.	Nitrogen lbs.	Phos. Acid lbs.	Potash lbs.
Oat-grain.....	8.8	49.2	4.3	1.8	.78	0.48
Oat-hay.....	4.7	36.7	1.7	1.4	.67	2.54
Oat-straw.....	1.3	39.5	0.8	0.6	.30	1.77
Corn.....	7.8	68.8	4.3	1.6	.71	0.52
Cornstover.....	1.8	40.5	0.8	0.8	.50	1.45

A crop yielding 30 bushels of grain and 1,350 pounds of straw would remove the following plant foods from an acre:

	Nitrogen lbs.	Phos. Acid lbs.	Potash lbs.
30 bu. or 900 lbs. grain.....	17.28	7.5	4.6
1350 lbs. of straw.....	8.10	4.1	29.9

### Coming Farmers' Meetings

International Livestock Exposition, Chicago, Ill., Nov. 28-Dec. 5.  
Farmers' National Congress, Ft. Worth, Texas, October 14-17.  
American Good Roads Congress, Atlanta, Ga., Oct. 19-26.  
National Dairy Show, Chicago, Ill., Oct. 28-31.  
National Nut Growers' Ass'n., Thomasville, Ga., Oct. 28-30.  
West Tennessee Farmers' Institute, Jackson, Tenn., Sept. 29-Oct. 1.  
Georgia-Carolina Road Congress, Atlanta, Nov. 9-14.