2. Date of sowing rape, ...........................................
3. What variety of rape used? .................................
4. Amount of seed used per acre? ............................
5. Nature of soil? ..............................................
6. How prepared? ..............................................
7. Did you sow rape seed immediately before or after a
   shower? .......................................................
8. When were the rape plants first noticeable? ...........
9. When were the oats cut? ...................................
10. How did the yield of oats compare with the yield on land
    where no rape was seeded? ..............................
11. How long after oats were cut before rape was fit for feed-
    ing purposes? ...........................................
12. How many and what kind of animals did you pasture upon
    the rape? .................................................
13. Did you feed a grain ration also? .......................  
14. Did animals fed upon the rape thrive? .................
15. Approximately, how much green fodder did the rape pro-
    duce per acre? ...........................................
16. Did you notice any detrimental effects from the feeding
    of rape? ...................................................
18. Briefly give your opinion as to the value of rape as a soil-
    ing crop. ................................................

Experiment No. 7.

Soy Beans.

The soy bean was probably introduced into the United States
from Japan about fifty years ago and has been cultivated with
success in the southern states. In Japan it is used extensively
as a human food, but in this country it is grown for the seed,
as a forage plant, and as a soil renovator. As a forage, its use
as a soiling crop is becoming recognized, by stockmen and dairymen,
as it withstands the drought exceptionally well and will
give a good cutting of green forage at the time when other feeds
are shriveled and wilted. Soy beans of the late variety gave a cutting of 9.9 tons green forage per acre at the Wisconsin Experimental Farm in 1900 and yielded thirty-eight bushels of seed beans per acre in 1902, and forty bushels per acre in 1903. It makes an excellent hay, and at the Kansas Station a yield of about three tons of cured hay per acre was secured.

Like the clover, the soy bean is a nitrogen gatherer and enriches the soil on which it is grown. It is said to grow on soil quite low in fertility, but a mellow, fairly rich soil is preferable. It requires a well drained porous soil; in no case should the seed be sown on low ground that is saturated with water during most of the growing period or on a heavy clay soil that is inclined to bake.

When sown for hay or a soiling crop, a drill or broadcast seeder can be used to advantage. If sown for seed, use a corn or bean planter and sow in drills about thirty inches apart and about three inches apart in the drill. When planted in drills as described, from two to three pecks of seed per acre will be used.

Soy beans should not be planted while the ground is cold; immediately after corn planting is a favorable time.

Sow in accordance with suggestions above given, for growing soy beans for seed, one-tenth of an acre.

When desired for hay, soy beans should be cut when the pods are partly developed. Try a few square rods sown broadcast for a soiling crop and for hay. When grown for seed they should be harvested and threshed as our common variety of beans and put in a large open bin and shoveled over frequently to avoid heating.

If you have a silo try soy beans with corn. Plant in drills with the corn planter using one-third soy beans and two-thirds corn mixed. When planting with corn for the silo use the Medium Green variety as this variety is noted for its great leaf development. No difficulty will be experienced cutting the soy beans with the corn harvester at the time of harvesting corn. For pasture, hay or seed the Ito San variety will give excellent satisfaction and will usually ripen before the fall frosts.
Secure a sack of inoculated soil from the Experiment Station and scatter on a portion of the field that you desire to plant to soy beans, and note the development of nodules. The roots of the soy bean plants growing on that part of the field where the bacteria-laden ground is scattered will have numerous nodules attached to them which decay in the fall and add much fertility to the soil. When a few square rods of ground are inoculated and soy beans are grown thereon, henceforth ground can always be secured from this source of supply to scatter on other fields where the desire is to have the nodules develop.

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**Report Blank, Experiment, No. 7.**

**Soy Beans.**

Name of experimenter, ..................................................

P. O............, County........., State..................

1. Date of planting soy beans, ........................................

2. Character of soil, .............................................

3. What crop had been grown the previous year? ..................

4. Was the land used, fall or spring plowed? ....................

5. Give your method of planting. ..................................

6. How long after planting were beans first noticeable? ....

7. Give your method of cultivation, ............................... 

8. Did you try a few square rods for forage? .....................

9. How many pounds of green forage did you cut from a square rod? .........................................................

10. How many pounds of cured hay did you get from a square rod? .................................................................

11. Did the stock eat the green and cured forage readily? ..... 

12. What kind of stock did you feed it to? ....................... 

13. Did the beans left for seed ripen evenly? ...................

14. Date of harvesting, .............................................

15. Manner of harvesting, .........................................

.................................................................
DIVISION OF FARM ENGINEERING.

PROF. G. N. KNAPP.

Members of the Experiment Association: We have a number of lines of work under consideration and before the end of the season I think that we will have definite propositions to offer. When we do we will co-operate with Professor Moore and correspond with members of the Association and see what work can be taken up. There is very little that I can think of that can be offered in the way of a definite line of investigation that can be taken up by the different members. There is a great deal that we want in the way of statistics. We wish to find out how many silos there are in the state. We want new data on the capacity of silos. We would like to co-operate with those who are in position to weigh the corn into the silo and weigh it out again to find out exactly how many tons of silage silos of the different sizes hold. We would be glad to hear from all members of the Association who are in position to take