

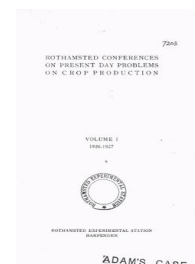
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## The Growing of Lucerne

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### Written Statement of Experience

#### C. Turnor

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have been recorded where the presence or absence of an adequate lime supply has been the controlling factor in the production of the crop.

(21) Lucerne can be grown successfully on most types of soil which will carry other rotation crops.

*Problems of Cultivation*

(22) The land must be clean before the crop is sown and should be kept clean afterwards.

(23) The drilling of seed in hoeable rows is generally preferred to broadcasting, but with either practice the sowing should be very shallow (less than 1 in.).

(24) The seed bed should be firm and moist and the tilth very fine and even.

(25) When the plant is established in strong rows, 12 in. or more apart, it can be kept clean by the most drastic after-cultivation without fear of destroying the subsequent crop. Cultivators, horse-hoes, heavy harrows and skim-ploughs are commonly used with success as cleaning implements on strong crops of three years' standing.

(26) The number of cuts taken or the amount of grazing produced in any year depend largely upon the vagaries of the season, but generally two good hay cuts and a green aftermath for cutting or grazing can be relied upon. If the first cut in any year is taken before the annual weeds have formed seeds it will materially assist the cleaning of the land.

(27) The making of lucerne hay demands a special care, as it is desirable to preserve as much of the leafage as possible, and much movement in the field is to be avoided.



## WRITTEN STATEMENT OF EXPERIENCE

By CHRISTOPHER TURNOR

I HAVE grown lucerne on a considerable area of land for upwards of twenty years, and on one of my farms 25 per cent. of the total area is under this crop.

When I first began to grow lucerne I tried inoculating. I got the culture from the American Department of Agriculture. I fed and tended that culture according to directions. For three days I travelled about with a large blue bottle; it went with me wherever I went, and at specified times I put in the recommended ingredients, but I found no difference between seed which was not inoculated and that which was. I have now reason to suppose that the care and attention I bestowed upon the contents of that bottle were wasted upon dead bacteria.

The great essentials in regard to the successful growing of lucerne are that the land shall be well drained and there shall be a sufficiency of lime. Where the soil is deficient in lime I find that a dressing of 1 ton of ground lime per acre secures the desired results.

Lucerne is sown in the same manner as clover seed. It should not be sown more than 1 in. deep, and it cannot be rolled too much. Having tried a good many methods, in the main I like drilling 9 in. apart, as that permits of cleaning operations in the autumn and spring. One cannot be dogmatic about the time for sowing; this must vary according to the cleanness of the land, the season and the part of England. For some years I sowed in the first week of August. This allowed for a thorough cleaning of the land, and was successful if the succeeding winter was mild, but if the winter is cold I find that such late seeding runs the risk of having most of the plants destroyed. Generally speaking, I do not favour sowing in a covering crop. On the other hand, last year I sowed over 80 acres in a covering crop, and have an excellent plant.

Lucerne has a remarkable capacity for smothering and overcoming weeds, and I have had lucerne a year old in June which looked as if the weeds would entirely master the crop, but, after mowing, a splendid second crop came up and permanently mastered the weeds. The greatest enemy of lucerne is grass, and after the first year it is almost impossible to cultivate and horse-hoe the lucerne field too much, both in the autumn and in the spring.

From the economic point of view I believe lucerne to be one of the most valuable crops in the whole range of husbandry. It reduces the cost of production enormously. On the average I count



## LUCERNE

on five years of effective cropping. I have cut as much as 4 tons of hay to the acre, but I do not regard it as a hay crop, but rather as a home-grown substitute for cake; in fact during my dairying operations of many years it has certainly halved the cake bill. It is therefore uneconomic to regard lucerne hay as hay, and not to use it in the reduction of a heavy cake bill. This is a mistake which many farmers make. In 1921 I went carefully into the cost of producing lucerne, and, taking the whole cost of a field five years under lucerne, I could produce lucerne hay ready for use at 30s. per ton. 1921 was a period of high prices, so that to-day it should be produced at under 30s. per ton.

Lucerne is also a crop which reduces the labour bill on a farm. The land still remains plough-land, but as the crop is in the land for five years instead of one or two years, as in the case of clover, a corresponding saving in labour is effected. Perhaps even more striking is the economic value of lucerne from the capital point of view. It stores up fertility in the soil more than any other plant. It is commonly supposed that the fertility so stored up will be available for a period of years equal to the number of years the crop has been in the field; but in one field of poor land, after five effective years of lucerne, I have taken eight consecutive crops without giving any nitrogenous manure. There is little doubt that there the lucerne, during the five years it was in the field, stored up nitrogenous substance to the value of at least 1 ton of sulphate of ammonia, or practically the selling value of the land (the land in question was poor third-rate land). After the lucerne crop was ploughed up a crop of mangolds was taken—an unusually heavy crop for the type of land—after that four white crops of barley and oats, then a crop of roots, followed by two more white crops. Last year the field gave a good crop of barley, and this year it is going into barley again. The corn crops were remarkably heavy. Oats, the fifth crop after the lucerne, threshed out at over 9 qrs. to the acre. Barley crops ranged about 6 qrs. to the acre. The area of this field was 17 acres, and during the time it was under lucerne it carried for ten weeks in the summer sixty head of cows, two bulls and eight horses, lucerne being fed green, and was practically the only food they had during that period.

I am very glad that Rothamsted is investigating lucerne growing, since I am sure it should play a much larger part in the economy of the farm over a much wider range of the country than it does at present.

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