

Commencement Thesis.

Kansas Forestry:
Conditions and Needs.

Claude Masters,
Class of '99.

Outline.

Kansas Forestry: Conditions and Needs.

Introduction.
 Present Conditions of the State
 The Eastern Part.
 The Central Part.
 The Western Part.
 Needs.
 Methods of Operation.
 Benefits as a Result.

455

Kansas Forestry: Conditions and Needs.

Introduction.

Much has been written on the subject of Forestry, but very little that has been applied directly to the conditions and needs of our own State. The object of this thesis is to take up the conditions as we find them here, to see how they may be changed for the better, and what may be expected as a result.

Present Conditions of the State

One need be permitted to enjoy life in the State espec-

ially the western part, but a short time to be able to realize that this portion of the earth's surface is greatly in need of more trees.

The Eastern Part.

In the Eastern part of the State, there is found, or there has been found in the past, a very liberal distribution of forest trees. There are no great tracts of woodland covering the whole country for many miles, as there is in many of the States; but in the low land along the rivers and creeks there is much valuable and beautiful timber. There is scarcely a stream that can be called a stream at all but what has its belt of timber from a few hundred feet in width to miles.

The trees are not small, snarly, scrubby trees, but they are

straight, tall and handsome; indeed there is found here some of the finest wood. Here are tall stately elms, oaks, walnuts, hickories and others that make up the principal part of the forest. But these are only a few of the numerous species that grow and thrive there. This proves to us the possibilities of forest and tree growth in this State. If, without the aid of man, nature can produce such forests as this in the State, with the aid of man, it ought to produce such forests as any State might well be proud of.

The Central Part.

As we go West, this luxuriant tree growth gradually lessens. One hundred miles from the Eastern line we still find narrow strips of forest, but the width of them decreases, and many species that

are found along the border have disappeared. We note the absence of the shellbark hickory, the pecan, the red bud and others of minor importance.

We also note a great change in the country in other ways which can only be mentioned here. The winds seem to have increased, the cyclones are more numerous, it is hotter, drier, the soil is baked and we begin to realize how great a loss a lack of forestry is to a country.

The Western Part.

We go another one hundred miles, and find a few scattering scrubby trees instead of the belts of woodland. Here and there we notice a few half dead, ugly cottonwoods, a few box elders, struggling for existence. We find the vain for the hickories, oaks

and many others.

We find that they have given up the great struggle, which without the aid of man, is very difficult in this section. A few energetic farmers have located here and assisted nature, and, from the results of their efforts we may see some of the possibilities of tree growth where assisted.

But let us cross the next one hundred mile line, and we come to what might be called a treeless region. We find the hot wind, the scorching sun, the barren, sandy earth, and we look in vain for a clump of trees, a spring, or a stream. Here and there are a few lovely trees, that, with the aid of man have secured an existence.

Now we can fully realize the great benefits of the forests or timber belts to the eastern part of the State. We realize

what a great need there is a cemetery and we long for the day when we may find an indication of a forest in that part of the State.

This gives us a rapid glance at the conditions of the forests of the State. True, it varies somewhat, as along the Kansas, the Arkansas and the Medicine Rivers, the forests extend farther west, but we have practically a dying out, a fading away of the forests from the eastern to the western part.

We cannot call the conditions of the eastern part an ideal one, we can see many ways of improvement, many ways in which the value could greatly be increased, but as compared in this respect to the western part, we might call it a paradise.

Needs.

We cannot think of this and realize the great need of more forests without wondering if there is not some way in which this condition can be improved. Yes, indeed, there are many ways if the people of the State could only be brought to realize this need and persuaded to put forth a systematic, determined and persistent effort. We do not realize this need, many of us because of carelessness and indifference and many because of ignorance. Some however, are conscious of these facts and put forth what effort they can to remedy the evil but the number of such persons is so small comparatively that they find the work very difficult.

Methods of Operation.

The experiment station here has proven to us what can be done along this line. The College grounds are among the most beautiful to be found anywhere.

West on the old College farm we find a young forest upon a sandy plain in Kansas that is as vigorous and beautiful as many we find in natural forest regions.

The trees found here are not merely of two or three varieties which are adapted to such places but are of many varieties; firs, spruces, cedars, oaks, elms, catalpas, osage orange and many others. Altho this is well toward the central part of the State, we find that a forest is not an impossibility.

As we go East, we may expect much better results. As

we go West we cannot hope
for as much, but we can
hope for returns that will
amply repay us for our
efforts.

This question must be
taken up, agitated, the people
brought to realize this fact,
and a movement toward
this improvement begun.

To a certain extent, we find
an effort being put forth. The
State Agricultural College
has a course in Horticulture
and Forestry, showing
us the effects of forest and
tree culture, and methods of
planting and taking care of
them. The Botany taught there
and in other schools, colleges,
and universities is also a
great help. We find in the com-
mon schools the observance
of Arbor Day thus giving early
in life the idea of tree planting
and adornment. All such are

these are a great help and should be encouraged and practical use made of the knowledge thus obtained.

A great example can be set, and is being set by the schools. Around almost every University, College and school we find beautifully ornamented grounds.

The cities are also doing a great work. We find parks and rows of trees along the streets and in yards. However, cities are often negligent. Many parks are poorly taken care of, and many streets and yards are without trees. The city government can easily take in hand the planting of trees and cleaning up of rubbish, thus increasing the beautiful and removing the unsightly.

However these are not the places where we find the great need of tree planting

and efforts toward beautifying. For this, we go to the country, around the houses, along the roads and see the farms.

As one rides across the prairie, many are the farms that we see with no orchard, no group of forest trees, but only a few ugly snarled, struggling trees. Along the road we seldom see a row of trees. Of course, there is danger in the Eastern part of the State of shading the ground and keeping it muddy and wet, but in the West and Central parts we need have no fear of this, and trees can be planted along the road to a good advantage.

As we go out over the farms we look in vain for a young forest. In the Eastern part there is the timber land usually, but as a general rule this is being ruthlessly cleared away to make way for

cultivated crops, or perhaps simply for wood. In many cases the timber is being cut from off a stony or steep hillside which is unfit for anything else. More and more because of this the rich soil is being washed from the fields, the streamers are filling up and getting smaller, springs are closing and everything appears drier, more desolate, and we notice the great harmful influences which always follow the clearing of forests. Some steps should be taken to preserve these and to encourage more planting.

Farther West, we fail to find this natural timber land, but we should and must see in the future several acres of cultivated woodland as well as a good orchard upon every farm. A few acres are of great value as a wind-

broke, for posts, timber etc. Trees may be planted to prevent washing to preserve moisture and to enrich the soil. No farmer is a perfect one, no farmer is a wide-awake, successful one, unless we find this field of wood-land.

Over the State we find much waste land, many stony, steep hills, sand hills, swamps, very rough land etc. An effort should be made to utilize these places, and this waste portion be converted into valuable forest land. If each school, each city, each farmer and individual in the State would realize its duty, and take a little pains, it can readily be seen of what great advantage it would be to the State.

Benefits as a Result.

Can you picture the

468

increase in beauty such
case would add to the State? I
believe that it would have a
great influence over the hot
winds and the cyclones. The
air would be more moist in
the hot months of summer,
the earth would not be dry, hard
and baked. We would find it
moist, shady and cool and capa-
ble of sustaining life much
more easily than now. It
would prevent the washing
away of our soils, and would
bring much rich plants food
from the great depths to which
the roots penetrate to the surface,
and thus make our soils
much richer.

Besides these benefits to
the soil and climate, we would
find it hard to enumerate the
uses to which the timber would
be to us. Not until our fore-
fathers a timber land can
be realized its great benefit. We

find it useful for posts, as windbreaks, many trees bear edible fruits and the minor uses of timber about the farm and elsewhere are numerous.

Thus we find the conditions, the needs and the results obtainable by proper methods. This gives us an idea of our duty to the State and the benefits that will result from doing our part. Let us then use our influence, opportunity and energy to bring the people of the State each to do his share, and by doing our duty, we can change the grained old State from a barren prairie State of cyclones, grasshoppers and crickets to a State that will be second to none. We can not only make it "a good place to live in" but we can make it one of the best places to live in.