

## COTTONWOOD AS A CROP IN COLORADO\*

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Cottonwood stands, a native to Colorado waterways in eastern Colorado, are declining. One reason is the clearing of phreatophytes, water using plants, in an effort to gain more agricultural land or in an effort to convince Colorado Courts additional water rights should be granted to the landowner. Little disturbs me more than the simplistic view reflected by this attitude. Not considered by the phreatophyte remover is the loss of protection, both in summer and winter, for livestock, the loss of shade to cool water contained in the streams and the loss of scenery. Additionally, stream bank stabilization is endangered, the future timber product is lost and wildlife habitat virtually eliminated.

Another factor in the decline is the lack of reproduction. No one is absolutely sure of the cause. It may be drouth or insects and disease. It may be fluctuating water levels or lack thereof. Some people suggest the cause is sod bound soils while others blame over grazing. Glen Crouch, Principal Wildlife Biologist, employed by the Rocky Mountain Forest and Range Experiment Station, suggests in a soon to be published manuscript that it may be a combination of several of these factors. I tend to agree.

Another reason is commonly referred to as the "pioneer ethic." There is a desire on the part of landowners to have straight, clean, weed free rows and fields. Peer pressure is high, for oftentimes, the appearance of a field is a principal criterion for judgment. When landowners are queried on the subject one can expect a response, "I want to leave the land better than I found it." Of course, like beauty "better" is in the eyes of the beholder.

Demands are increasing on all of the United States forest lands. A study from Kansas State University sites some interesting statistics<sup>1</sup>. At the present time each citizen requires the annual woody growth from six acres of forest land. At the present rate of population growth, our nation requires the annual growth from 12 million more acres each year. Interestingly, the total commercial forest land in the State of Colorado is 12 million acres.

When we contemplate the subject, "Cottonwood as a Crop" or cottonwood for any use, we must all be aware of the threat of indiscriminate harvesting of these trees. Kansas and Nebraska have

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<sup>1</sup> Kansas Cottonwood Resources, Kansas State University, Manhattan, Kansas September, 1976.

recently gone through a very traumatic experience as the demand for cottonwood raw material grew in the early to mid 1970's. Thousands upon thousands of acres of riparian cottonwoods were butchered to supply southern pulp mills. Cottonwood is an excellent pulp species. The pulp wood logs were shipped out of Dodge City all the way to Pasadena, Texas, a suburb of Houston.

In an article in the Kansas Fish and Game magazine, entitled Chain Saws Gone Wild, allow me to quote some of the foresters and wildlifers in that State.

They marched off to the east, that warm short sleeve October day in Dodge City's railroad yards. Cottonwood logs, trimmed and prim were piled 20 cords high and lined up single file on seven groaning flat cars. Soon they would begin their trek across the Kansas flatlands bound for the sawmill.

As a switch engine muttered to itself on a side track close to the yard office, I found myself thinking about how dangling leaves on those cottonwoods once rattled noisily signaling every meandering breeze. Once these trees had shaded the swirling pools of the Arkansas River, the popping of fish as they fed on the cottonwoods fuzzy seeds had once been heard below these trees. Quail, squirrel and deer had stirred with their scratching the brittle leaves littering the brown, sandy river bottom soil. Perhaps even wild turkeys had roosted on the horizontal limbs.

Driven by the pioneer instinct, lured with the promise of big money, squeezed by real estate taxes, and longing for more crop land, many landowners are inviting logging crews to unleash screaming chainsaws on their trees.

The author goes on and talks about the impact of the energy crunch on Kansas forest lands and paints a dismal future.

If it had not been for an arbitrary increase in the railroad freight rate, the "fly-by-night" "quick-buck" artists who were cutting the trees in Kansas and Nebraska would be in Colorado today.

What to do? If indiscriminate harvesting is on the horizon, perhaps we should pass a law requiring landowners to get permission from a bureaucrat before doing anything with their forests. Few of us would subscribe to such an action. I know I will be in the forefront of the opposition.

A second alternative is to hope the "invaders" stay away. It's the do nothing attitude. We can all ring our hands and make idealistic pronouncements. This isn't a viable alternative.

It is my firm belief wood demand will grow to the extent eastern Colorado forests will be threatened with indiscriminate harvest. To give you an indication of the future, here is a statement from the Vice President of Southwest Forest Industries in Phoenix, Arizona ". . . with current and future environmental constraints on national forest lands throughout the United States, it will be increasingly difficult to meet the public's needs for wood products and we are therefore very interested in obtaining more information on the cottonwood resource in Colorado. We would appreciate receiving any available information from you regarding location, acres, volumes or current use of the Colorado cottonwood stands."

Another alternative is to lease or buy all the riparian forested acres. Like passing a law this is a simple and effective solution. Unfortunately, at today's land prices and the attitude of taxpayers, this alternative doesn't sound too viable either. The approximate 26,000 acres at \$400 per acre would cost \$10,400,000.

Finally we should consider the "American way" whereby the state provides leadership, education, service, technical assistance and through the federal government financial assistance to landowners in forest management. The mechanism is already in place. Through this system government has to sell a land management concept, but, in the final analysis, the landowner makes the decision. That decision will be based upon benefit to the landowner first and society second. Nevertheless, it is not only possible but probable that we can bring about a managed forest yielding the multiple uses so desired along our riparian waterways. These include various wildlife species and numbers, wood products, an attractive varied countryside and increased recreational opportunities.

Through forest management, not timber management, I envision an enlarged riparian forest. One estimate of our present forest along the Platte River is 26,000 acres. Why not aim for 50,000 acres by the year 2000? These forests can contain a diversity of tree and shrub species: walnut, bur oak, hackberry, sumac, cotoneaster, lilac, ash and superior cottonwood. Yes, cottonwood, but of a variety taller, straighter and faster growing. I visualize areas devoted to Christmas tree plantations. And, not only will we have present day wildlife species, their numbers will increase and other species will have become established. A Platte River hiking trail with camp sites will provide additional recreation to eastern Coloradoans and tourists. Several wood manufacturing facilities owned and operated by local, responsible citizens or groups of citizens will feature high quality products removed from well designed harvest areas.

In order to insure action, I hereby call upon the Soil Conservation Districts, the Division of Wildlife and the State Forest Service to form a task force to design and begin implementation of agreeable "best management practices" for riparian

waterways. Others should be involved: the U. S. Forest Service, Soil Conservation Service, Bureau of Land Management, University of Northern Colorado and Colorado State University. It will not be easy.

In other countries a czar would proclaim the "South Platte River Multiple Use Area". If someone objected or didn't cooperate, then off with his head! In America, it's going to take lots of selling, frustration and conflict but it can and will be done with your help.

In summary, we are experiencing the decline in present maturing and mature cottonwood forests in eastern Colorado. Cottonwood reproduction is not occurring due to one reason or another and finally there is a threat of indiscriminate harvesting as we have seen in Kansas and Nebraska.

We have various choices to alleviate this condition. They are (1) to regulate the landowners, (2) pray the invaders stay away, (3) lease or buy riparian forests, (4) work with the citizens through the give and take American system. Obviously, I favor the latter.

You, individually and collectively, have a major role. (1) You can encourage landowner friends or relatives to manage their forest land. The technical assistance is available on the ground. (2) You who own land should explore with the State Forest Service, the Division of Wildlife, and Soil Conservation Districts management options available. (3) You should insist that federal, state and local agencies work together to accomplish agreed upon goals. (4) Work for legislation and funding which will be needed down the road.

I hope you will share with me the dream of well managed, beautiful, productive forests of which we can all be proud.