

## Chapter 1 : Agriculture in Alabama | Encyclopedia of Alabama

*Locate An Office. We connect with people in all stages of life, from young children to older adults. We work with families and children, farmers and businessowners, community leaders and elected officials to build better lives, better businesses and better communities to make Ohio great.*

But even now, the ghosts of land-use past haunt these woods. New research by Philip Hahn and John Orrock at the University of Wisconsinâ€”Madison on the recovery of South Carolina longleaf pine woodlands once used for cropland shows just how long lasting the legacy of agriculture can be in the recovery of natural places. By comparing grasshoppers found at woodland sites once used for agriculture to similar sites never disturbed by farming, Hahn and Orrock show that despite decades of recovery, the numbers and types of species found in each differ, as do the understory plants and other ecological variables, like soil properties. The findings were published today in the *Journal of Animal Ecology*. The findings have implications for conservationists, land-use planners, policymakers and land managers looking to prevent habitat destruction or promote ecological recovery of natural spaces. Hahn and Orrock suggest new strategies may be needed in these disturbed environments. The findings also challenge conventional ecological wisdom, in ways the scientists did not expect. Orrock is an associate professor in the Department of Zoology. Building on past research that shows post-agricultural sites have poorer-quality soil and differences in the types of plant species that grow back, Hahn surveyed the plants, soil quality and grasshoppers found at 36 study sites. He wanted to know whether earlier land use changed the numbers and types of grasshoppers found at each site and whether the relationships between the insects, plants and the environment were altered. Researchers Philip Hahn and John Orrock studied woodlots like the longleaf pine forests above to see how lands once used for agriculture top photo compared to similar sites never disturbed by farming bottom. Sweeping through the plants in the understory with a tool called â€” fittingly â€” a sweep net, Hahn collected grasshoppers and recorded the types and numbers of those he found in both undisturbed and post-agricultural woodlands. He collected of the hopping critters, representing numerous different types of grasshopper. The researchers found differences in the types of grasshoppers collected in each, related to the understory plants that grew and the hardness of the soil. In remnant woodlands with no history of agriculture, more plant types equated to greater numbers of grasshoppers, an expected and traditional link between plants and the species that depend on them for food and shelter. This connection did not exist in areas once used as cropland, calling into question a long-held dogma of ecological relationships. The knowledge, the researchers say, presents opportunities to do better. For instance, Hahn believes new strategies can be tried, like reintroducing once-native plant species to abandoned sites earlier on, or proactively working on restoring the health of the soil. Conversely, more conservation and management efforts could be spent promoting less habitat degradation in the first place. We know business as usual might not work.

## Chapter 2 : Woodlands | Department of Agriculture, Environment and Rural Affairs

*Woodlands are an important part of our heritage, culture and biodiversity. After the glaciers had melted at the end of the last ice age, forests, first of birch, Scot's pine and hazel then of oak and ash, began to cover most areas of Ireland.*

Origin hypotheses[ edit ] Indigenous Australian camp by Skinner Prout, Scholars have developed a number of hypotheses to explain the historical origins of agriculture. Studies of the transition from hunter-gatherer to agricultural societies indicate an antecedent period of intensification and increasing sedentism ; examples are the Natufian culture in the Levant , and the Early Chinese Neolithic in China. Current models indicate that wild stands that had been harvested previously started to be planted, but were not immediately domesticated. An abundance of readily storable wild grains and pulses enabled hunter-gatherers in some areas to form the first settled villages at this time. An example is the semi-tough rachis and larger seeds of cereals from just after the Younger Dryas about BC in the early Holocene in the Levant region of the Fertile Crescent. Monophyletic characteristics were attained without any human intervention, implying that apparent domestication of the cereal rachis could have occurred quite naturally. Similar ploughs were used throughout antiquity. Agriculture began independently in different parts of the globe, and included a diverse range of taxa. At least 11 separate regions of the Old and New World were involved as independent centers of origin. Domestic pigs had multiple centres of origin in Eurasia, including Europe, East Asia and Southwest Asia, [11] where wild boar were first domesticated about 10, years ago. These eight crops occur more or less simultaneously on Pre-Pottery Neolithic B PPNB sites in the Levant , although wheat was the first to be grown and harvested on a significant scale. At around the same time BC , parthenocarpic fig trees were domesticated. Critics point to inconsistencies in the radiocarbon dates, and identifications based solely on grain, rather than on chaff. By BC, farming was entrenched on the banks of the River Nile. About this time, agriculture was developed independently in the Far East, probably in China, with rice rather than wheat as the primary crop. Maize was domesticated from the wild grass teosinte in West Mexico by BC. The site was abandoned in the 19th century BC. In China , millet and rice were domesticated by BC; the earliest known cultivation of rice is from BC. In the Sahel region of Africa , local rice and sorghum were domesticated by BC. Kola nut and coffee were domesticated in Africa. In the earliest levels of Merhgarh, wild game such as gazelle , swamp deer , blackbuck , chital , wild ass , wild goat, wild sheep, boar , and nilgai were all hunted for food. These are successively replaced by domesticated sheep, goats, and humped zebu cattle by the fifth millennium BC, indicating the gradual transition from hunting and gathering to agriculture.

### Chapter 3 : Helping Africa manage its agriculture and woodlands | Copernicus

*Woodlands News Woodlands revival adds new piece to carbon cycle puzzle Despite continuing concern about the fate of iconic rainforests, new research shows that the world's forests have stored away an extra 4 billion tonnes of carbon in the last dozen years and the total amount of woodland has increased worldwide since*

Woodland management really begins with understanding what you have and most importantly, what you want. Write down your landownership goals The first step in getting started is to determine your goals and objectives for your woodland. What do you want from your woodlands? Do you have to create a healthy forest? Do you want to make income from selling wood products? How interested are you in creating a forest legacy for your heirs? Do you simply want to enjoy the beauty of your woods? Sit down with your family and talk about your goals, your vision for your woodland. Do you and your family have a shared vision? You can determine your goals by simply writing them down on a piece of paper. Both of these interactive on-line tools will help you determine your goals, map your land, and get started on a management plan. Why do you need a plan? A written management plan outlines actions and activities designed to help you meet your goals. It serves as a road map for your property regardless of your objectives. What do you have? Map your property using online applications. Image courtesy of Google Earth. A good way to begin developing a management plan for your woodlands is to map your land. If you live close to your forest land, you can view aerial photographs of your property to your local Natural Resource and Conservation Service NRCS office. Most offices have older aerial photographs and can create a copy for your use. The Arkansas Game and Fish Commission also has a mapping system. Each of these use Google Earth as the base map. You can select different views, draw property lines, measure distances, and most importantly, understand how your woodlands are oriented within your local area. You can see nearby waterways, clearings, and even forest types. The simplest way to determine your forest type, condition, and existing products and resources is to hire a registered consulting forester to conduct an assessment of your land. A consulting forester is a professional forester who advises and watches out for the best interest of a forestland owner. Consulting foresters are in business, so they charge fees based on the type of service offered. Foresters sell some services at hourly or daily rates, while other services are sold at rates based upon acreage. Fees for conducting forest products sales are usually charged as a percentage of the gross revenue from the sale. No matter how the fees are calculated, the most important thing to remember is that the consulting forester works for the landowner. When you hire a consulting forester, that forester is your representative in negotiations with timber buyers and service contractors. That forester is the one you hire to watch out for your best interest. To learn more about consulting foresters and the services they provide, read our fact sheet. Learn more about consulting foresters If you do not want to hire a consulting forester, the Arkansas Forestry Commission will also write forest management plans for you based upon your objectives. The Arkansas Forestry Commission offers landowners a variety of technical assistance in forest management. Technical assistance is free of charge upon request. Services Provided by the Arkansas Forestry Commission The AFC offers services such as prescribed fire, management plans, and cost share programs Land examinations based on landowner objective of the property Written forest management plans. Sample sales contract and a list of potential markets for landowners that want to sell timber. Work with landowners to identify and control forest insects and diseases. Information about the availability of cost-share programs that will provide 50 percent or more of the cost to do tree planting, site preparation, and timber stand improvement. Searchable data base of forestry consultants and forestry vendors Wildlife Habitat Management If you are interested in improving wildlife habitat on your property, most state wildlife agencies have biologists that will work with you to develop a management plan with these goals in mind. The Arkansas Game and Fish Commission employs private lands biologists who can provide a written wildlife management plan along with current aerial photos identifying where wildlife practices are recommended. There are many state and federal agencies along with several private organizations that offer financial assistance to landowners to improve their lands for high-priority wildlife species. These programs offer incentive or easement payments, cost-share payments and other financial

assistance to assist landowners in the establishment or enhancement of habitat. Private lands biologists are well versed in private lands programs and can direct landowners to appropriate programs for assistance. To learn more about managing wildlife habitat, visit our wildlife habitat management page on this site. Several State, Regional, and National agencies and organizations have programs, information, and personnel who can provide assistance in your woodland management.

## Chapter 4 : History of agriculture - Wikipedia

*Agriculture Companies in The Woodlands on calendrierdelascience.com See reviews, photos, directions, phone numbers and more for the best Agricultural Consultants in The Woodlands, TX. Start your search by typing in the business name below.*

Ploughmen at work with oxen. Agriculture formed the bulk of the English economy at the time of the Norman invasion. The pre-Norman landscape had seen a trend away from isolated hamlets and towards larger villages engaged in arable cultivation in a band running north-south across England. The biggest change in the years after the invasion was the rapid reduction in the number of slaves being held in England. Thorkill of Arden, who held seventy-one manors in Warwickshire, and Coleswain, who had forty-four manors. The population of England rose from around one and a half million in to around four or five million in , stimulating increased agricultural outputs and the export of raw materials to Europe. Except for the years of the Anarchy , most military conflicts either had only localised economic impact or proved only temporarily disruptive. English economic thinking remained conservative, seeing the economy as consisting of three groups: Agriculture remained by far the most important part of the English economy during the 12th and 13th centuries. The Normans retained and reinforced the manorial system with its division between demesne and peasant lands paid for in agricultural labour. In some regions and under some landowners investment and innovation increased yields significantly through improved ploughing and fertilisers, particularly in Norfolk where yields eventually equalled later 18th century levels. The Church in England was a major landowner throughout the medieval period and played an important part in the development of agriculture and rural trade in the first two centuries of Norman rule. The Cistercian order first arrived in England in , establishing around eighty new monastic houses over the next few years; the wealthy Augustinians also established themselves and expanded to occupy around houses, all supported by agricultural estates, many of them in the north of England. The Great Famine of 1315–17 [ edit ] Main article: Great Famine of 1315–17 The Great Famine of began a number of acute crises in the English agrarian economy. The famine centred on a sequence of harvest failures in 1315, 1316, and 1317, combined with an outbreak of the murrain sickness amongst sheep and oxen between 1317 and 1318 and the fatal ergotism fungi amongst the remaining stocks of wheat. Economic growth had already begun to slow significantly in the years prior to the crisis and the English rural population was increasingly under economic stress, with around half the peasantry estimated to possess insufficient land to provide them with a secure livelihood. The commencement of war with France in 1337 only added to the economic difficulties. Black Death The Black Death epidemic first arrived in England in 1347, re-occurring in waves during 1361–62, 1369–70, and more sporadically thereafter. In the decades after the disaster, the economic and social issues arising from the Black Death combined with the costs of the Hundred Years War to produce the Peasants Revolt of 1381. The agricultural sector of the English economy, still by far the largest, was transformed by the Black Death. With the shortage of manpower after the Black Death, wages for agricultural labourers rapidly increased and continued to then grow steadily throughout the 15th century. The position of the larger landowners became increasingly difficult. They began to invest significantly less in agriculture and land was increasingly taken out of production altogether. Initially livestock and land were rented out together under "stock and lease" contracts, but this was found to be increasingly impractical and contracts for farms became centred purely on land.

## Chapter 5 : Managing your Woodlands

*Bluegrass Farms and Woodlands. likes. We are a grass fed cattle operation. Our goal is to create a self sustaining ranch that produces quality beef.*

Habitats Woodlands are an important part of our heritage, culture and biodiversity. Types of woodland Native woodland is one that consists of trees, shrubs and associated plants that are considered to be naturally occurring. These woodlands can be classified as oak, mixed ash, wet woodland and lowland wood pasture and parkland. In Northern Ireland a mild moist climate favours broadleaf trees. Most broadleaf trees lose their leaves in winter and allow high levels of light to reach the woodland floor. This stimulates growth of woodland flowers such as primrose, wood sorrel and bluebell. Ancient woodland Ancient, semi natural woodlands are the most valued part of woodland for nature conservation as the plant and tree species have descended from the original native woodland. These woodlands can contain large trees, known as veterans, that may be several hundreds of years old and can be traced back to the original native woodlands. Species such as pedunculate and sessile oak, along with an understorey of hazel, wych elm and ash are usually present. The wildlife is usually richer than those newer established woods with an abundance of mosses, ferns, lichens and woodland birds. Wet woodland Wet woodland is a varied range of woodland and scrub that occurs on poorly drained or at least seasonally waterlogged soils. A lot of these woodlands are very young, but as they mature their species diversity increases with trees such as willow, alder, downy birch and occasionally ash and oak. Typical plants include yellow flag iris, marsh marigold, ferns and sedges along with some rare species such as elongated sedge and large bitter-cress. Wet woodland can provide breeding sites for mammals such as the otter and the common pipistrelle bat alongside some species of breeding birds. Lowland wood pasture and parkland Lowland wood pasture and parkland is a very rare habitat in Northern Ireland. It is a special type of broad-leaved and mixed woodland on a large landscape scale and consists of generally scattered or individual trees, with surrounding land grazed by livestock. It is found mainly in demesne plantings and deer parks. Although many of these are in private ownership, some have been incorporated into urban parks for public recreation. This habitat is good for vertebrates and lower plants such as lichens, mosses, liverworts and fungi. Some rare native trees found in this habitat include whitebeam. There is a ground flora of spring-flowering herbs such as wood anemone, bluebell, primrose and ramsons wild garlic. Mixed ash woods Mixed ashwoods are the predominant woodland type in Northern Ireland. Dependant on base rich soils, they range from woods on steep limestone scarps and screes, to more gentle slopes with deeper soils. Often very rich and colourful ground flora with bugle, bluebell and ferns. The main tree species are ash with locally dominant oak, downy birch and hazel but rowan is also found. Some woods have been colonised by sycamore and beech which are not native to Northern Ireland. Oak woodland Woodland dominated by oak trees naturally occur on moist free draining sites throughout Northern Ireland and would have been very common at one time. Trees present include sessile and pedunculate oak, downy birch, holly, rowan and hazel. Bluebells can be found covering extensive areas alongside greater wood rush and bilberry. These woodlands are noted for the diversity and abundance of mosses, lichens, liverwort and fungi.

## Chapter 6 : Economics of English agriculture in the Middle Ages - Wikipedia

*Daniel Burden Program Specialist, Value Added Agriculture Iowa State University Extension & Outreach. If you are interested in some interesting ways to make your acreage pay a few bills and perhaps have a little fun along the way, the free publication, Profitable Farms and Woodlands: A Practical Guide in Agroforestry for Landowners, Farmers and Ranchers is available as a download or in soft.*

Interaction[ edit ] The Adena culture built conical mounds in which single- or multiple-event burials, often cremated, were interred along with rich grave goods including copper bracelets, beads, and gorgets, art objects made from mica, novaculite, hematite, banded slate, and other kinds of stone, shell beads and cups, and leaf-shaped "cache blades". This culture is believed to have been core to the Meadowood Interaction Sphere, in which cultures in the Great Lakes region, the St. Lawrence region, the Far Northeast, and the Atlantic region interacted. The large area of interaction is indicated by the presence of Adena-style mounds, the presence of exotic goods from other parts of the interaction spheres, and the participation in the "Early Woodland Burial Complex" defined by William Ritchie [5] Pottery[ edit ] Pottery was widely manufactured and sometimes traded, particularly in the Eastern Interior region. Clay for pottery was typically tempered mixed with non-clay additives with grit crushed rock or limestone. Pots were usually made in a conoidal or conical jars with rounded shoulders, slightly constricted necks, and flaring rims. Pottery was most often decorated with a variety of linear or paddle stamps that created "dentate" tooth-like impressions, wavy line impressions, checked surfaces, or fabric-impressed surfaces, but some pots were incised with geometric patterns or, more rarely, with pictorial imagery such as faces. Pots were coiled and paddled entirely by hand without the use of fast rotation such as a pottery wheel. Some were slipped or brushed with red ochre. Pottery, agriculture, and permanent settlements have often been thought of the three defining characteristics of the Woodland period. In some areas, like South Carolina and coastal Georgia, Deptford culture pottery manufacture ceased after c. Subsistence strategies[ edit ] In coastal regions, many settlements were near the coast, often near salt marshes, which were habitats rich in food resources. People tended to settle along rivers and lakes in both coastal and interior regions for maximum access to food resources. Most groups relied heavily on white-tailed deer , but a variety of other small and large mammals were hunted also, including beaver , raccoon , and bear. Shellfish formed an important part of the diet, attested to by numerous shell middens along the coast and interior rivers. Coastal peoples practiced seasonal mobility, moving to the coast during the summer take advantage of numerous marine resources such as sea mammals and shellfish, then moved to interior locations during the winter where access to deer, bear, and anadromous fish such as salmon could see them through the winter. Seasonal foraging also characterized the strategies of many interior populations, with groups moving strategically among dense resource areas. Recently evidence has accumulated of a greater reliance of woodland peoples on cultivation in this period, at least in some localities, than has historically been recognized. This is especially true for the middle woodland period and perhaps beyond. Margaret Scarry states "in the Woodland periods, people diversified their use of plant foods They did so, however, by cultivating starchy seeds rather than by gathering more acorns. As the Woodland period progressed, local and inter-regional trade of exotic materials greatly increased to the point where a trade network covered most of the Eastern United States. Throughout the Southeast and north of the Ohio River , burial mounds of important people were very elaborate and contained a variety of mortuary gifts, many of which were not local. Among the traded materials were copper from the Lake Superior deposits; silver from Lake Superior and especially Ontario; galena from Missouri and Illinois; mica from the southern Appalachians; chert from various places including Ohio, Indiana, and Illinois; pipestone from Ohio and Illinois; alligator teeth from the lower Mississippi Valley eastward to Florida; marine shells, especially whelks, from the south Atlantic and Gulf coasts; Knife River chalcedony from North Dakota; and obsidian from Yellowstone in Wyoming. These have come to be known as the Hopewell tradition. Due to the similarity of earthworks and burial goods, researchers assume a common body of religious practice and cultural interaction existed throughout the entire region referred to as the "Hopewellian Interaction Sphere". Such

similarities could also be the result of reciprocal trade, obligations, or both between local clans that controlled specific territories. Clan heads would then be buried along with goods received from their trading partners to symbolize the relationships they had established. Under this scenario, permanent settlements would be likely to develop, leading to increased agricultural production and a population increase. Ceramics during this time were thinner and better quality than earlier times. Examples also show pottery also was more decorated than Early Woodland. One style was the Trempealeau phase which could have been seen by the Hopewell in Indiana. This type included a round body, and lines of decoration with cross-etching on rim. The Havana style found in Illinois had a decorated neck. One of the major tools unique to this era was Snyders Points. These were quite large and corner-notched. They were made by soft-hammering percussion, and finished by pressure flaking. Late Woodland period

CE [ edit ] The late Woodland period was a time of apparent population dispersal, although populations do not appear to have decreased. In most areas construction of burial mounds decreased drastically, as well as long-distance trade in exotic materials. At the same time, bow and arrow technology gradually overtook the use of the spear and atlatl , and agricultural production of the " Three Sisters " maize , beans , and squash was introduced. While full scale intensive agriculture did not begin until the following Mississippian period, the beginning of serious cultivation greatly supplemented the gathering of plants. Late Woodland settlements became more numerous, but the size of each one with exceptions was smaller than their middle Woodland counterparts. The reasons for this are unknown, but it has been theorized that populations increased so much that trade alone could no longer support the communities and some clans resorted to raiding others for resources. Alternatively, the efficiency of bows and arrows in hunting may have decimated the large game animals, forcing the tribes to break apart into smaller clans to better use local resources, thus limiting the trade potential of each group. A third possibility is a colder climate may have affected food yields, possibly affected by Northern Hemisphere extreme weather events of , also limiting trade possibilities. Lastly, it may be that agricultural technology became sophisticated enough that crop variation between clans lessened, thereby decreasing the need for trade. As communities became more isolated, they began to develop in their own unique ways, giving rise to small-scale cultures that were distinctive to their regional areas. Although the CE ending of the Late Woodland period is traditional, in practice many regions of the Eastern Woodlands adopted the full Mississippian culture much later than that. Some groups in the north and northeast of the current United States , such as the Iroquois , retained a way of life that was technologically identical to the Late Woodland until the arrival of Europeans. Furthermore, despite the widespread adoption of the bow and arrow during this time, the peoples of a few areas of the United States appear never to have made the change.

**Chapter 7 : Grasshoppers signal slow recovery of post-agricultural woodlands, study finds**

*Agricultural land management has been a positive force for the development of the rich variety of landscapes and habitats, including a mosaic of woodlands, wetlands, and extensive tracts of an open countryside.*

Cotton Bale Alabama agriculture has changed considerably since the mids, when cotton was king and Alabama was known as "The Cotton State. Few modern Alabamians depend totally on agricultural production for their livelihood, but as of there were 42, farms on 8. Poultry and eggs accounted for 65 percent of these sales, cattle and calves accounted for 11 percent, nursery and greenhouse crops 8 percent, and cotton 4 percent. History Agriculture has been practiced in what is now Alabama for centuries. Prehistoric Native Americans practiced slash-and-burn agriculture, in which they cut and burned forests to make room for their patches of corn, beans, and squash. Early European travelers through Alabama described vast areas of the landscape that were open savannahs, the result of natural and human-made fires. Early settlers moving south from Tennessee and Kentucky found the clayey, limestone-derived soils of the Tennessee Valley and other north Alabama valleys well suited to crop production. The soils of the Piedmont area were initially attractive to settlers moving westward from Georgia, but they quickly discovered that soils on the hilly land washed away easily after plowing. The central Alabama Black Belt Prairie region, once known as the " Canebrake ," appealed to those emigrating from the Carolinas and Georgia. The region was accessible because of its rivers and its dark, clayey soils were well suited to plantation -style cotton production. Although cotton and other crops were grown on the sandy soils of the Cumberland Plateau and the Coastal Plain , they were not as productive, and farmers had not yet adopted the use of fertilizer and lime to increase soil fertility. The Industrial Revolution in Great Britain created an insatiable appetite for cotton fiber and in , Eli Whitney patented a new type of cotton gin in the United States, which lowered the cost of processing fiber. This event resulted in the cession of millions of acres of former Creek lands and opened up the territory west of the Chattahoochee River for settlement. By the time Alabama became a state in , the interior of the state was easily accessed via the Tombigbee, Warrior, Alabama, and Chattahoochee rivers. Crops could also be transported to European and New England markets via the ports of Mobile and Apalachicola, Florida. Settlers poured into the new state with one objective: Cotton and Crop Diversification Cotton acreage expanded rapidly throughout Alabama until the outbreak of the Civil War, particularly in the Black Belt and Tennessee Valley regions where plantations prospered using mostly enslaved labor. Soils in these areas were clayey, more fertile, and not as acidic as the soils of the Coastal Plain and Cumberland Plateau. Mobile grew as well, becoming a major U. Cotton production boomed after the war, as sharecropping replaced the plantation system. Some historians argue this new system empowered landowners and oppressed those who worked the land as much as slavery had. The number of acres planted in cotton grew steadily from around one million in to almost four million in The only other crop grown to any extent during the post-Civil War period was corn to feed livestock and the people who worked the land. Although few records of corn production exist, estimates indicate that as many acres were planted in corn as cotton. Until the s, very few soil amendments were added to replace nutrients used up by the crops, and the common practice of plowing in the fall and planting in the spring resulted in widespread and severe soil erosion. Erosion Alabama led the former Confederate states in agricultural education and was the first to take advantage of the federal Morrill Act, which aimed to create land-grant "agricultural and mechanical" universities separate from established state universities. In , the East Alabama Male College now Auburn University in Auburn , the Lee County , was a recipient of Morrill Act funds and was designated the Alabama Agricultural and Mechanical College with the purpose of teaching agricultural, mechanical, and military sciences. In , the Alabama legislature appropriated funds to establish the Alabama Agricultural Experiment Station, the first in the South. Tuskegee Institute , founded in in Tuskegee , Macon County , also served as a leader in agricultural education. Thomas Monroe Campbell , a Tuskegee graduate and the first African American extension agent, brought newly developed agricultural methods and technology to rural black farmers with his Movable School. Tuskegee scientist George Washington Carver researched and promoted the production of peanuts on the sandy, infertile soils of

southeastern Alabama. One of the most dramatic changes in cotton production in Alabama and throughout the South was the appearance and subsequent destruction cause by the Mexican boll weevil. This insect reached Alabama in , being first discovered in western Mobile County , and had a devastating effect on the cotton crop, with cotton production declining by one million acres at full infestation. This effort continued until the mids when an effective boll weevil eradication program was implemented.

**Chapter 8 : Assessing Trees and Woodlands | Forestry and Natural Resources**

*Profitable Farms and Woodlands: A Practical Guide in Agroforestry for Landowners, Farmers and Ranchers is a practical handbook on agroforestry, in an easy to read format written for.*

FAO Except in North Africa, all the other sub-regions of Africa suffered net losses of forestland during the last decade. The countries in the North Africa gained the small net forest cover through tree planting with Egypt having the highest increase of 3. In Western Africa only Gambia had a net forest cover gain of 1. This sub-region experience one of the highest growth of urban population and this has caused deforestation in the immediate vicinity because of increased forest exploitation for fuel wood and building materials while settlements continue to increase Bellefontaine et al. Swaziland in the Southern Africa region had a net forest gain of ha or 1. Countries in the south lost much land through deforestation and few efforts were made to compensate the losses through afforestation programmes. A country like Tanzania has continued to loose about , ha annually through deforestation Munyanziza, In s the annual deforestation in Burkina Faso was 50, ha for the purpose of expanding agricultural land Middleton and Thomas Deforestation in Niger has been so high that this has contributed to serious threat on the population of giraffe, which numbered only individuals in mid s from a much high population Ciofolo, The extent of deforestation of forests, and therefore initiation of land degradation to the extent described above, has been largely attributed to the rising need for agricultural land especially around the fridges of dry areas. It is apparent from this analysis that the so common small-scale farming activities in the sub-humid, dry sub-humid and dryland areas has a serious impact in initiating and accelerating land degradation and to the extents shown in Tables 2 and 3 above. In general and in addition, the combination of overgrazing, droughts, human population and choice of land use have been argued to play an important role in the extent of degradation of vegetation and soil conditions Middleton, ; Middleton and Thomas, The contribution of population in degradation of natural resources is more apparent when the effects of drought incidences and various types of land uses reported in Tables 2 and 3 above are taken into consideration. Data on fire incidences and intensities in Africa is inadequate to facilitate useful and comprehensive analysis of its contribution to land degradation FAO Information on forests, woodlands and grasslands fires is therefore grossly missing yet fire is an important factor in the maintenance of vegetation cover and degradation in drylands. Although areas burnt by fire may sometimes recover after the onset of rains, a combination of fire and drought, which is a common phenomena in drylands of Africa will usually lead to serious degradation of vegetation and eventually to land degradation. Fire incidences, some of them very bad, are common in the entire African continent but more so in the dryland zones. Degradation of vegetation exposes soil mantle to further degradation. Water logging play only a small role in soil degradation of the semi-arid and dry sub-humid zones. Erosion by wind is more prominent in the arid areas but has about the same effect in the semi-arid zone. Water erosion is the more important agent of soil erosion in the dry sub-humid zone. Due to high population of livestock in the semi-arid zone, soil compaction is greatest here than in the other dry zones. Soil erosion will inevitably lead to desertification. Forests and woodlands Degradation Rates In very few cases are annual rates of land degradation in Africa been reported with certainty. This is mainly because only a few case studies have been followed for sufficient number of years that would allow evening out of the annual variations in records. In most of the cases reported gaps of information have been pointed out and more data and improvement of methodologies have been urged UNEP, ; Middleton and Thomas, ; FAO, As a result of variability of methodologies used and prevailing conditions of natural resources, estimates of rates of degradation are generally very different even in areas close together.

**Chapter 9 : Woodlands (Forestry) Articles | Agriculture XPRT**

*Cotton Bale Alabama agriculture has changed considerably since the mids, when cotton was king and Alabama was known as "The Cotton State." By , almost four million acres were planted to cotton, and by only million acres were devoted to all agricultural crops.*