The initial trip to north carolina

Business, Management

Vegetables represent a viable alternative in arms of profitability per acre, but many of the vegetable crops offering the highest returns also require substantial inputs of both capital and labor. Furthermore, most vegetable crops are perishable and require intense marketing to ensure that the product is sold prior to deteriorating. Therefore vegetables, in general, may not be good alternatives for tobacco, especially when growers may work off the farm and not have sufficient capital or marketing expertise to ensure success. Unlike tomatoes and other high-profit vegetables, sweatshops are a crop that would be a good alternative for tobacco farmers.

Sweatshops require relatively low inputs (with the exception of the cost of slips) in terms of management and labor. They can be grown using bare-ground production techniques, and utilize already existing tobacco transplanting equipment. After planting the require some of the lowest inputs of all vegetable crops.

Harvest can be done in a one-time manner and sweatshops are a relatively long-storing crop when cured correctly offering the ability to market to several channels. Sweatshops are also in-demand throughout Kentucky giving growers the ability to start small and sell their product through retail outlets. Despite requiring less management than other vegetables there were still several important questions that remain regarding sweatpants production in Kentucky. What varieties are best suited to growing conditions here, should they be irrigated, what harvest methods work the best, are there appropriate low-cost curing and storage solutions, and what marketing channels are profitable for growers. The methods used to achieve each objective varied.

Early in the project several growers and advisers toured Jones' sweatpants farm and Strickland Pros. Equipment in Bailey, NC. Mr... Jim Jones, proprietor, was extremely generous with his time and showed the groups around the farm allowing Kentucky growers to learn from a successful grower.

After the initial trip to North Carolina our growers transplanted over 1 00, 000 slips in 2009 and more than 1 50, 000 in 2010. It was expected that more than 200, 000 slips were going to be planted in 201 0, but several growers did not want to increase production acreage. Yield data of three varieties, Beauregard, Northern, and Coving were collected at several farms in Eastern Kentucky (2009 + 2010 reports). Plantings of a given variety were fairly large 1/4 acre). Yield data was obtained by choosing three-1 5 foot plots of each variety in each planting, harvesting and weighing roots. Data obtained from University research-farm plots was collected from four-50 foot plots of each variety. In 2010, 11 varieties were trialed at a University research-farm and Sarah Baffin's vegetable farm.

In addition several growers tried different planting spacing at their farms. Yield data for different spacing was not collected. However each grower was consulted regarding their results with each spacing. Sweatshops were irrigated at Baffin's vegetable farm and at University research-farms and yields compared to non-irrigated plots.

Irrigated plots during 2009 and 2010 at University research-farm sites were approximately 1 50 feet long with four replications of ' Beauregard'. Yield and cull data was collected. A sweatpants flip-plow was purchased by the Morgan county extension office and compared to a traditional potato plow for

ease of harvest. Slip production trials were conducted and a slip production demonstration was conducted at a University-research farm site in 2010. This demonstration proved that our growers could cost-effectively produce slips. In 2011 a slip production trial was planned to be located at Mr.

.. Keith Hall’s farm. However record-rain falls in April and May prevented us from getting in the trial locations until early June. It was decided that data from a slip trial conducted 2 months late would not be appropriate for growers and the trial was not conducted. In 201 0 a low-cost curing method using straw and burlap was trialed at two locations.

Essentially a "e; curing mound"e; was formed with temperature and humidity sensors placed in the mound to monitor changes in conditions compared to sweatshops cured in boxes. Samples of sweatshops were then stored for 6 months, weighed and evaluated for disease monthly. Growers were encouraged to market through a variety of methods including wholesale, on-farm retail, farmers-market retail, events/festivals, and produce auctions. During the annual sweatpants school held in late winter in Morgan County, KY these market options were discussed for their pros and cons.

Prices obtained by growers were then used to develop realistic budgets. 1. 1. 1 http://’.

N. Www. Intestate. Com/economy/KY_economy.

HTML terms of revenue generated, the top five agricultural products produced in Kentucky are roses/mules, broilers (young chickens), cattle and calves, tobacco, and soybeans. Livestock Livestock and livestock products

generate revenues that amount to about 66% of Kentucky agricultural economy. Thoroughbred horses and beef cattle are Kentucky most important livestock products. Other livestock products are broilers (young chickens), milk and eggs, and hogs. Crops Tobacco, soybeans, corn for grain, and wheat are Kentucky leading field crops. Barley, hay and grain sorghum are also grown. Tomatoes are a leading “ vegetable” crop..

. As they are categorized. Apples are the leading fruit crop.

Manufacturing Manufacturers add value to raw products by creating manufactured items. For example, cotton cloth becomes more valuable than a boll of cotton through manufacturing processes. Manufacture of transportation equipment (motor vehicles, motor vehicle parts) is Kentucky primary activity in this sector of the economy. Other manufactured transportation equipment includes aircraft parts, boat trailers and railroad cars. Ranking second in the manufacturing sector is the manufacture of chemicals (cleaning products, pharmaceutical products, paints, industrial chemicals, industrial gases). The manufacture of machinery (elevators, air filtration equipment, conveyors, heating and air-conditioning equipment, printers, compressors) ranks third. Mining Kentucky is a leading coal producing state.

Other mined products are natural gas, petroleum, and limestone. Kentucky leading service industries are the community, business, and personal services (private health care, hotels, law firms, repair shops) and wholesale and retail trade industries (wholesale trade of coal, food products, motor vehicles, and retail automobile dealerships, gas stations, grocery stores,

restaurants). Government services (operation of public schools, hospitals, military bases) rank third in Kentucky services sector 1 .

1. 2 http://www. Scenically. Mom/releases/2011 /05/110505083737 HTML Heavy agricultural machinery results in more permanent damage to the soil than previously believed by researchers. This may lead to poorer crop yields and increased pollution from agricultural land. Related Articles Hydroponics Soil life Agronomy Soil science Groundwater Infiltration (hydrology) The result is called soil compaction and it concerns the negative effect of driving heavy machinery on soil that is used for growing plants.

Soil impaction is characterized by increased density of the soil, reduced air volume and a reduced ability to drain off surplus water. Nordic collaboration In a Nordic collaboration project, researchers from Norway, Sweden, Denmark and Finland aim to find out more about the soil’s tolerance for load and the environmental consequences of soil compaction. The Research Council of Norway Food Programmer has funded the Norwegian part of the research.

The first measurements were carried out in experimental plots in Sweden and Finland, from which soil samples were taken and analyses, among other things through the use of CT scanning. This technology is normally used to diagnose illnesses in people, but it can also be used to create images of soil structure. Less food, more pollution The preliminary results have surprised the researchers. “ It has generally been assumed that structural damage at 25 to 40 centimeters’ depth has recovered after ten years. However, our

findings show that the pore system and density of the soil are clearly affected even 14 years after the soil was subject to compaction.

This may mean that compaction leads to permanent changes," speculates Trend Bëresin, Professor at the University of Life Sciences (NUMB). According to Professor Bëresin, compaction of the soil reduces the land's long-term ability to produce food. Poorer soil structure leads to more erosion and greater loss of nutrients and pesticides.

Affected by climate change and heavy machinery Climate change also makes the soil more vulnerable to compaction, according to the professor. " driving on wet soil increases the risk of damage to both the topsoil and the subsoil. If the climate changes and we see more precipitation in spring and autumn, we will soon see a lot more damage from soil compaction than we do today," he says. The agricultural land is also affected y the fact that the weight and size Of the machinery have increased significantly during the past ten years. " In European agriculture, a lot of machinery has an axle load that far exceeds the load it takes to cause permanent compaction damage. Some of them weigh up to 60 tones.

There is little to indicate that this development will stop," says Professor Bëresin. Nitrogen to the air and water Compaction in the surface soil (0-25 CM) can reduce the crop yield by 5 to 15 per cent. This problem Will be temporary if the soil is properly managed afterwards.

However, in layers of soil that are located more than 50 entireties below the surface, the yield reduction can continue on to the next generation, or, in the

worst case scenario, for ever. Poorer soil structure reduces the effect of added nitrogen. In compacted soil, the plants are only able to absorb Benzene 60 and 65 per cent of such substances. The rest is prone to leaching and can end up in rivers and watercourses.

Moreover, compacted soil loses nitrogen to the atmosphere more easily because nitrate is converted into nitrous oxide, which is a greenhouse gas. The researchers at NUMB have been assigned the main responsibility for investigating this problem. So far, it seems as if the deeper layers of soil contribute relatively little to this loss. “ This was not entirely unexpected. Thirty to forty centimeters down into the soil, there is not much energy for the bacteria that are necessary to convert nitrate into nitrous oxide.

We have recently started carrying out measurements of undisturbed soil samples, and this may generate other results,” Professor Bëresin explains. So far, the soil researchers have studied the long-term effect of compaction. Now, they have also initiated studies of the immediate effect in two new plots in Sweden and Denmark.

Need for regulation In Professor Bëresin’s opinion, regulations need to be introduced to protect the soil’s potential for growth. “ Limitations on maximum axle load are in the offing. We must consider whether to introduce similar limitations on agricultural land,” he says. The EX. Is in the process of developing models for what is viable in this field. In Norway, many areas are less at risk because the agricultural land consists of moraine soil, which is particularly resistant to compaction.

There are areas that are more vulnerable in other parts of Norway. “ There is every reason to take precautions and introduce necessary assure as quickly as possible, because it takes such a long time to rectify the damage once the soil has been compacted,” Professor Bëresin concludes. 1.

2. 1 http://www. EPA. Gob/cottage/gal 01 ‘ crops oil.

HTML Soil erosion can be caused by either water or wind. In many agricultural areas, soil is eroding at a rate of several tons of soil per acre per year or higher. The map shows erosion rates on cropland from 1 982 through 2007 by farm production regions.. This map only includes erosion rates on cropland. The good news is that soil erosion in the U. S. Is decreasing.

From 1982-2007, oil erosion declined about 40% in the LLC. S. , due to government conservation programs, technological advances, and extension education efforts. The following maps show the contrast of wind and water erosion in 1 982 and 2007. There is a significant decrease in wind and water erosion on cropland in 2007. 1.

2. 2 http://www. Imp. Cicadas. Du/OMG/POSTPONES/pennon.

HTML Annual bluegrass, Pop annum, is one of the most common weeds of residential and commercial turbofans, ornamental plantings, and gardens in the United States. It is native to Europe but is distributed worldwide. Commonly referred to as “ Pop,” it is a particular problem in golf course greens and fairways, but it can also be a troublesome weed in vegetable and agronomic crops grown in cool climates.

Though present in tree and vine crops in California, it usually isn’t a significant problem. The genus Pop consists of about 200 species worldwide. Their typical boat-shaped leaf tips, which curve up like the bow of a boat, are a distinguishing characteristic of the genus. Three members of the genus Pop are commonly found in turbofans sites in California.

Kentucky bluegrass, p. Parasites, is a common cool-season ruff species that is well adapted to cool, well-watered sites such as coastal and intermediation areas. Rough bluegrass, P.

Rivals, is a less desirable turf species that does well in moist, shaded areas but lacks heat and drought tolerance, so it is short-lived and is generally considered a weed. Annual bluegrass is a weed species that, unlike Kentucky and rough bluegrass, is able to survive low mowing heights of less than 1 inch and still reseed. A fourth species, bulbous bluegrass, P. Bulbous, is sometimes found as a weed in Northern California turbofans. IDENTIFICATION AND LIFE CYCLE Annual bluegrass is a misnomer because there are two plant types of annual bluegrass-” a true annual, P. Annum vary. Annum, and a perennial type, P.

Annum vary. Patens. While the two types aren’t easy to distinguish from each other, the annual type is more upright in its growth habit and produces more seed than the lower-growing perennial type. The annual type also tends to produce a higher percentage of dormant seed. The perennial type produces seed that germinates readily under optimum conditions. Depending on the site, there might be a predominance of one type or a mixture of both. The perennial hype is common in such sites as golf course

greens, while the annual type tends to be more common in lawns and parkways, although both types can be found in either of these situations. Annual bluegrass is a cool-season grass weed that starts germinating in late summer or fall as soil temperatures fall below OFF.

It continues to germinate throughout winter, allowing several flushes of germination at any one site throughout the season. Annual bluegrass grows 6 to 8 inches high when left endowed. It has light green flattened stems that are bent at the base and often rooted at the lower stem mint. Leaf blades are often crinkled part way down and vary from 1 to 3 inches long with typical Pop boat-shaped leaf tips. The inflorescence (flowering structure) has branched seed clusters (panicle) that are 1 to 4 inches long. Seed clusters, also called seed heads, can form as soon as plants are six weeks old; although this can occur from early fall through early summer, most seed heads are formed in spring.

The annual form of annual bluegrass is a rapid and prolific seeder. Each small plant can produce about 100 seeds in as few as eight weeks. Viable seed can be produced just a few says after pollination, which allows the plant to reseed even in frequently mowed turf. The small seed is amber colored and about 1/1 6 inch long. Annual bluegrass has a fairly weak and shallow root system and needs frequent rainfall or irrigation to survive. It grows well in moist areas in partial shade to full sun and tolerates compacted soil conditions. In coastal regions or in moderate temperature areas where turf is frequently irrigated, annual bluegrass can persist all year.

In warmer areas, it usually dies in summer. IMPACT Annual bluegrass can be a major weed problem in home lawns and is a notational nuisance for turf and landscape managers.