



IOWA DEPARTMENT OF NATURAL RESOURCES

# MAINTAINING THE STATE FOREST NURSERY

## A LONG-TERM VIABILITY STUDY



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**Submitted to the Governor and the Joint Appropriations Subcommittee on  
Agriculture and Natural Resources**

Iowa Department of Natural Resources  
Chuck Gipp, Director  
December 1, 2016



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## Executive Summary

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This study is being completed to comply with state fiscal year 2016 legislation. Specifically the legislation (House File 2454; section 23) states: “The department of natural resources shall conduct a study of the long term viability of maintaining the state forest nurseries. Pursuant to section 455A.13, the nurseries must establish by rule sale prices offered for plants that cover all expenses related to the growing of the plants. The department shall submit a report, including findings, recommendations, and any proposed legislation, to the governor and the joint appropriation subcommittee on agriculture and natural resources not later than December 1, 2016.”

The State Forest Nursery (SFN) has a critical role in providing native Iowa seed source plant material for reforestation projects, wildlife habitat, soil erosion control, water quality improvement, and nutrient reduction practices. Iowa’s farmers have relied on the SFN to provide high quality tree and shrub seedlings for voluntary conservation practices for over 70 years. Through their comments and unwavering support over the last two years; they have demonstrated how much they value the State Forest Nursery’s critical role in conserving, enhancing, and protecting Iowa’s natural resources.

Utilization of plant material adapted to Iowa’s climate is vitally important to the long term success of tree and shrub conservation projects. Seedlings from more southern or northern climate zones are not well adapted to Iowa’s climate and are under continual stress. This stress weakens the plants over time and makes them more susceptible to native insect and disease attacks. These attacks significantly shorten plant lifespan and the functionality of conservation practices such as reforestation projects, wildlife habitat plantings, and forested riparian buffer plantings.

The SFN also protects the health of Iowa’s native forests. Non-native exotic pests and pathogens can be very destructive to our rural and urban forests. Pests such as emerald ash borer, sudden oak death, thousand cankers disease of walnut, and others can hitchhike to the state on infected conservation seedlings and spread to throughout the state. Emerald Ash Borer alone is expected to cost Iowa communities and homeowners over two billion dollars for tree removal and replacement. Statewide economic impact and loss of tree benefits will be over four billion dollars. The State Forest nursery and the availability of Iowa seed source and Iowa grown conservation seedlings is the best defense in protecting the health and economic viability of our native woodlands and community forests.

## State Forest Nursery and Iowa's Nutrient Reduction Strategies

As mentioned in the Executive Summary, the State Forest Nursery has an important role to play in helping Iowa improve water quality. The 2016 updated document entitled, "Iowa Nutrient Reduction Strategy: A science-based framework to assess and reduce nutrients to Iowa waters and the Gulf of Mexico" lays out a clear case for the important role of forests and trees in helping the state meet its nutrient reduction goals (41% nitrogen and 29% phosphorous). The following excerpts come directly from that document:

*"The USDA's 2010-15 strategic plan includes two goals that relate directly to Iowa's nutrient strategy: Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources;... These two goals and the associated federal resources relate to Iowa's nutrient strategy and will have a major impact on its success."*

*"(Spear, 2003) - This thesis reported results from three buffer field trials northeast of Ames, Iowa. One of the three sites (Risdal North), which was established prior to 1990, was a grass buffer 35 m in width. The other two (Risdal South and Strum) sites are both mixed buffers with grass, shrub, and tree components. Risdal South is 22 m wide and was established in 1990 while Strum is 17 m wide and was established in 1994. Nitrate-N concentration reductions for Risdal North, Risdal South, and Strum are 65.6%, 32.8%, and 48.6%, respectively"*

*"There was a large amount of variability, but forests tend to have the lowest estimated P loads"*

*"This study is a companion to (Zaimes et al., 2008b) and investigates streambank erosion rates from different agricultural systems. Erosion results showed more streambank erosion from the row crop system with an average erosion rate of 239 mm/yr over a 3-year period. In contrast, riparian forest buffers showed an average of 15 mm/yr over the same period in northeast Iowa and 46 mm/yr in central Iowa. Continuous and intensive rotational pastures were between 101 and 171 mm/yr. Associated with this erosion is P loss, which had a similar trend to erosion."*

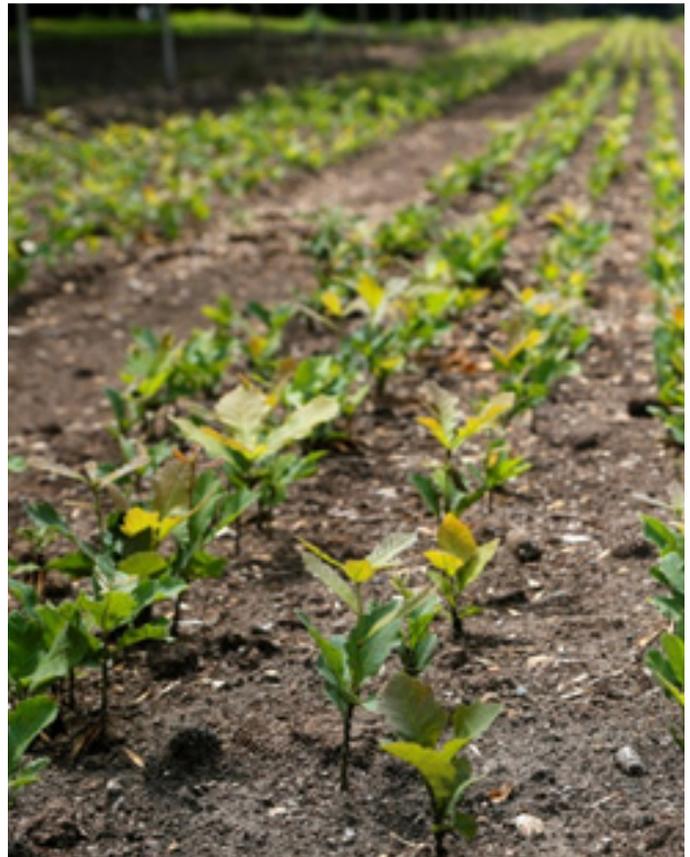
*"Widespread use of bioreactors will require trees be planted to provide the woodchips. It is estimated 111,000 acres (0.5% of Iowa's row crop acreage) of trees would be needed to supply chips for bioreactors if used at the maximum level."*

A bioreactor is essentially a buried trench filled with a carbon source (commonly wood chips), through which

tile water is allowed to flow. The carbon source provides material upon which microorganisms can colonize. Using wood chips as a food source, the microorganisms begin breaking down nitrate in the water and expelling the nitrate as dinitrogen gas (N<sub>2</sub>), a primary atmospheric component.

It is worth repeating that according to the nutrient reduction strategy document; maximum bioreactor implementation would require an additional 111,000 acres of trees be planted. Meeting that requirement would require sixty to eighty million tree seedlings. That is a staggering number of seedlings. Even meeting twenty-five percent of maximum bioreactor utilization goals would require fifteen to twenty million seedlings. For some additional perspective it is worth noting that since the SFN began producing seedlings in the 1940s has sold an estimated 168 million seedlings.

The State Forest Nursery will clearly be a critical component of Iowa's efforts to reduce nutrients in our water. The benefits to water quality of keeping forestland forested, installing additional forested riparian buffers, and the emerging interest in bioreactors will demand a source of locally adapted plant material that can survive and thrive in Iowa's climate and soil conditions. It will require a healthy and thriving Iowa State Forest Nursery.

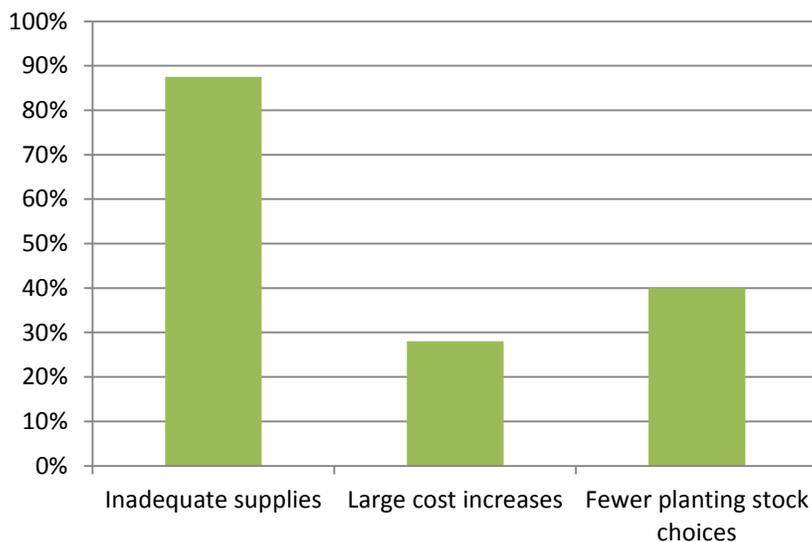


**Newly emerged oak seedlings**

## State Forest Nurseries – National Background

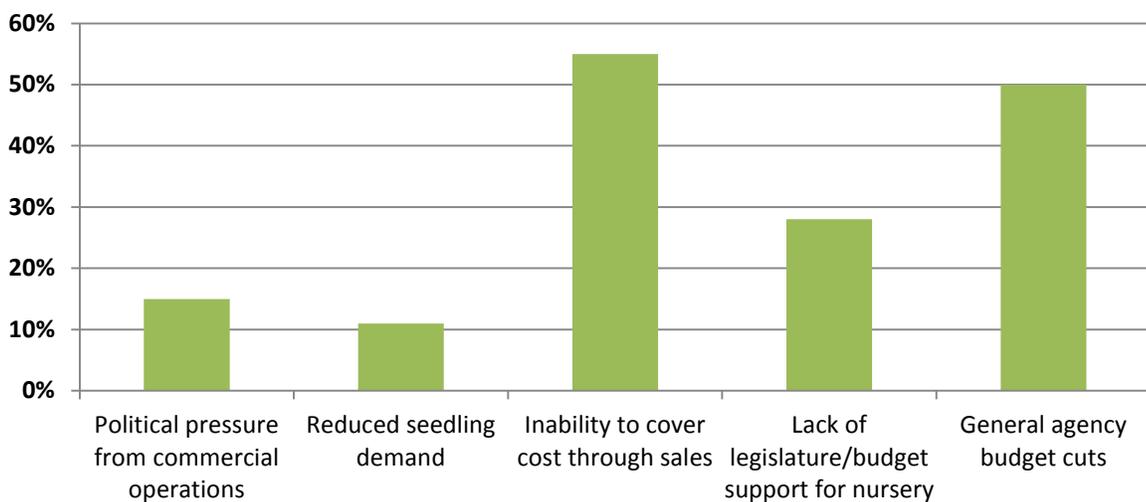
Before going into detail on the issues and concerns specific to Iowa's Nursery, it is appropriate to look at state nursery issues and trends nationally. According to a 2016 National Association of State Foresters (NASF) study of State Forestry Agencies, thirty states currently operate at least one nursery. Twelve states have not ever operated a nursery and eight states had a nursery that is now closed. Seven of eight of these closures occurred after 2005.

Seven of eight states (87.5%) with closed nurseries indicated that there was an inadequate supply of seedlings available to state landowners following that closure. Almost 28 percent of states reported large cost increases and over 40 percent reported fewer planting stock choices available to landowners (see table 1).



**Table 1: What problems have occurred in states that closed their nurseries?**

The most common reason given for closure of nursery operations was that the nursery was unable to cover all operating costs through nursery sales. Other reasons stated were political pressure from commercial nurseries, reduced seedling demand, lack of budget support, and general agency budget cuts (see table 2). Iowa's largest issue of concern is current levels of seedling demand and the corresponding impact on revenues.



**Table 2: What was the primary reason for closing a state nursery?**

About half of the states that responded to the study are required to have sales cover the entire cost of the nursery operation (as is Iowa). Just over a quarter of

*“I WISH THERE WAS SOME WAY TO SELL LESS THAN 500 AT A TIME... THOSE OF US THAT ARE FULLY PLANTED CANNOT USE THAT MANY BUT COULD USE MAYBE 100. I WOULD BE WILLING TO PAY MUCH MORE FOR SMALLER QUANTITIES”*

Ron Fullenkamp  
farmer/landowner, West Point, Iowa

**Table 3: How are state nurseries funded throughout the United States.**

Choose one of the following to best describe how your nursery is funded.	Response Percent	Response Count
Mostly state general funds, but sales offset an unspecified portion of the cost	25.8%	8
We're required to have sales offset the entire cost of the nursery operation, and if not then the agency must cover the shortfall by redirecting other funds	25.8%	8
We're required to have sales offset the entire cost of the nursery operation	22.6%	7
We're required to have sales offset at least 75% percent of the cost	3.2%	1
We're required to have sales offset at least 50% percent of the cost	0.0%	0
We're required to have sales offset at least 25% percent of the cost	0.0%	0
Other (please specify)		
	answered question	31
	skipped question	19



the states receive state general fund dollars in addition to income generated from the sale of seedlings. One state is required to cover seventy five percent of their costs and the remaining twenty five percent comes from other sources (see table 3). Michigan utilizes public land timber sale revenue to support their nursery and Pennsylvania utilizes the majority of their seedlings for use on state land.

When asked what are the primary challenges faced by nursery operations the top three answers were decreasing seedling demand, difficulty hiring skilled personnel, and labor shortage (see table 4). The top three concerns nationally are also concerns of the Iowa State Forest Nursery.

The data from the NASF survey indicate that Iowa is not alone in its struggles to deal with seedling demand issues and in generating revenue that equals or exceeds expenses.

**Table 4: What are the main challenges in operating a state nursery?**

What are the main challenges that your nursery operation faces? <i>Check all that apply.</i>	Response Percent	Response Count
Decreasing seedling demand	65.5%	19
Difficulty hiring skilled personnel	58.6%	17
Shortages of laborers	58.6%	17
Budget pressure to cut funding	41.4%	12
Difficulty procuring source-identified seed for native species	34.5%	10
Pressure from commercial interests to shut down	27.6%	8
Budget pressure to offset more of costs from increased sales revenue	24.1%	7
Need for more technical information around planting/tending/seed treatment requirements for specific species	20.7%	6
Increasing seedling demand	17.2%	5
Access to methyl bromide	17.2%	5

## Iowa State Forest Nursery History and Background

The State of Iowa has a long history of supporting tree planting efforts on rural land. Between 1917 and 1922 thousands of low cost trees and shrubs were furnished to private landowners, the Indian Service, State Parks, and other agencies to establish sizable plantations on eroded and sandy lands.

The facilities for greatly increasing tree distribution came with the advent of the Civilian Conservation Corps program and the acquisition by the State of nursery and other lands to increase the effectiveness of the program. Hundreds of acres of state lands were planted with trees and shrubs for timber production, erosion control, wildlife habitat, and recreation.

The original one hundred acre Ames nursery site was built in the 1930s. The Iowa Conservation Commission took over the nursery in the early 1940s. In 1982, a satellite nursery was established at Montrose on land owned by the Department of Corrections. The Montrose Nursery has very little infrastructure. It consists of seedling beds, irrigation system, and a few out buildings. It has no cold storage for seedlings, no facility for inspecting, grading, lifting or shipping seedlings. Seedlings grown at the Montrose Nursery are lifted and immediately shipped to the Ames facility for cold storage, grading, bagging, and shipping.

The satellite Nursery near Montrose ceased seedling production in the fall of 2016. This decision was made due to staff reductions and need to reduce costs by consolidating nursery operations at one facility.



## Nursery Legislation

According to Iowa Code Section 455A.13 “the department shall develop programs to encourage the wise management and preservation of existing woodlands and shall continue its efforts to encourage forestation and reforestation on private and public lands in the state”. This section of the code also says, “the department shall adopt administrative rules establishing a range of prices of plant material grown at the state forest nurseries to cover all expenses related to the growing of the plants”. These rules are found in Chapter 71 of Iowa Administrative Code 571.

Section 456A.20 says “Moneys appropriated to the department which are used in growing or handling nursery stock shall be used for growing or handling of the nursery stock for distribution only on state-owned lands. However, the department may do any of the following:

- Produce and sell game cover packets and trees for erosion control at private sale.
- Produce trees for a demonstration windbreak in each township in the state.
- Dispose of growing trees under a departmental plan of distribution.”

This section also directs the Department to place five cents for every conifer sold and ten cents for every hardwood tree and shrub sold to the Forestry Enhancement Fund. Section 456A.21 outlines what other moneys could be deposited into the Forestry Enhancement Fund and to what ends these moneys can be spent.

The upshot of this legislation is that the SFN exists as part of the Department’s legislative mandate to encourage reforestation on private lands. It is mandated under code to cover the costs of growing plant material. However, the Nursery could receive a funding appropriation to grow plant material for public land use. Prior to 1986 the SFN was subsidized by the state general fund.

*Aerial view of Iowa’s State Forest Nursery in Ames*

## Nursery Operations

Growing and selling tree and shrub seedlings is a complicated process involving multiple overlapping steps. These steps include seed collection, seed storage and preparation, planting, irrigating, weeding, undercutting, fertilizing, lifting, grading, and shipping. These steps occur throughout the year involving over forty species with unique cultural needs. The following pictures demonstrate many of the activities needed to successfully grow and sell tree and shrub seedlings.

## Sales History

Since 1941 the State Forest Nursery has sold over 168 million tree and shrub seedlings. That is enough trees and shrubs to reforest and provide wildlife habitat on 330,000 acres or an area roughly one-third of the size of Rhode Island.

The greatest output from the state nursery system was from the late 1980s through 2005. Tree and shrub seedling sales were fueled by the farm crisis, relatively low grain commodity prices, and Conservation Reserve Program (CRP) incentives that highly favored tree planting. Low commodity prices led to federal government incentive programs and practices aimed at taking land out of production. Farmers looking to stabilize their financial situation through decreasing farm input costs and generate sustained income from their property enrolled in CRP in record numbers. The result was an increased number of acres taken out of row crop production and enrolled in CRP tree planting practices and a subsequent increase in tree sales at the State Forest Nursery.

From 2005 to 2012 seedling sales steadily decreased as commodity and land prices increased. Corn prices have decreased since 2012; however the decreased commodity price has yet to result in higher seedling sales (Chart 1). This is in part due to changes in the Conservation Reserve Program. These changes introduced incentive payments and contract lengths for native grass practices and herbaceous pollinator vegetation that rival the incentives that had previously been exclusive to tree practices. Many landowners opt for grass practices because they provide similar financial incentives and are significantly easier to

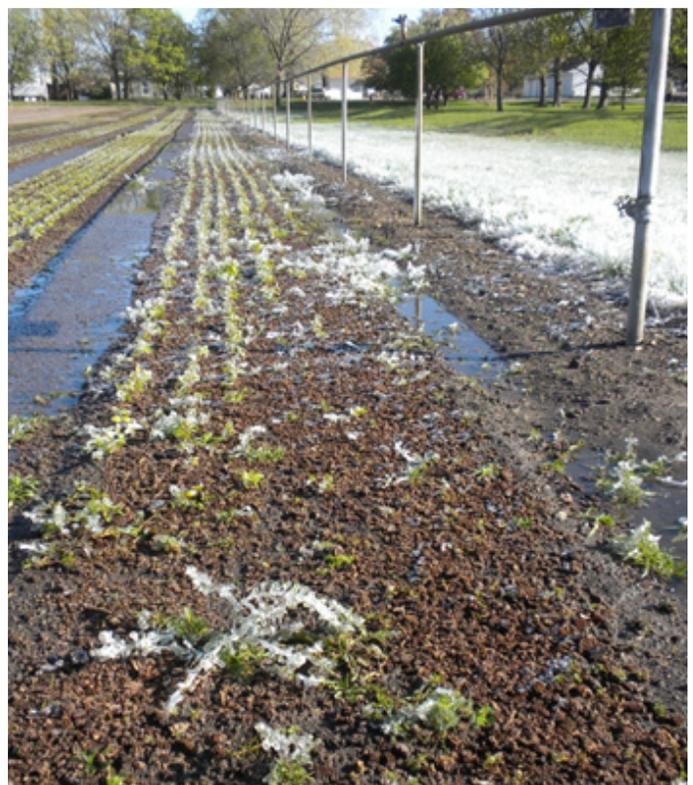
***Above and right: Seedling lifter used at the State Forest Nursery. Irrigation used to encase young seedlings in ice to protect them from frost damage during late spring cold snap.***

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“I HAVE BEEN PURCHASING TREES GOING ON 6 YEARS AND THIS PROGRAM IS AWESOME. I COULD NOT HAVE PLANTED AND GOT GROWING THE # OF TREES WITHOUT THIS PROGRAM.”

CMSgt Timothy Mulligan  
132 Civil Engineering Squadron Des Moines , Iowa

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*Left and clockwise: Seeding oak acorns in spring 2016. This piece of equipment was purchased from a private sector business for \$5,000. Because it covers acorns with soil it saves the nursery \$10,000 annually by reducing the amount of corncob mulch needed. DNR Forestry staff collecting hazelnut seed at Reichelt Unit of Rock Creek State Park. Oak seedlings sprouting at the State Forest Nursery in Ames.*



return to row crop production following the expiration of their CRP contract.

State Forest Nursery revenues declined from 2005-2014 due to decreasing seedling sales. As revenues decreased, cost containment measures were taken at the nursery.

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**“LOSING THE STATE FOREST NURSERY WILL RUIN MY BUSINESS. LOCALLY GROWN AND SOURCED SEEDLINGS, GREAT CUSTOMER SERVICE AND PACKAGING MAKE YOUR PRODUCT MORE DESIRABLE.”**

Shane Morris  
NE IA TREES Private Sector Forestry Services Vendor.

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These measures included but were not limited to: changing or eliminating nursery management practices, elimination of SFN Supervisor position, shrinking and eventually phasing out nursery operation at the Montrose Nursery, use of inmate labor, utilization of contract crews, and reduction of FTEs at the SFN. In FY 2002 the SFN budget for permanent and temporary help was \$599,000. In FY 2015 the budget for permanent and temporary help was \$378,540.

The attempt to bring SFN expenditures in line with shrinking revenues created significant problems with customer service and with seedling quality. Declining quality and service led many forestry contractors and consultants, who are the nursery’s largest repeat customers, to seek their seedlings from other public and private sector nurseries. A decision was made in 2011 to take the steps needed to improve seedling quality. Seedling quality has markedly improved and sales have stabilized. In June 2016, an individual from the Cascade area who spent over 40 years in the private nursery sector commented to the State Forester that the bareroot hardwood seedlings he recently purchased from the SFN were “the best I have ever planted”.

Examination of the last three years of sales records indicate that twelve forestry contractors have purchased almost thirty-three percent of seedlings sold at the SFN. These customers list several reasons for purchasing from the SFN. These reasons are: 1) locally adapted seed source, 2) superior quality, and 3) superior service.

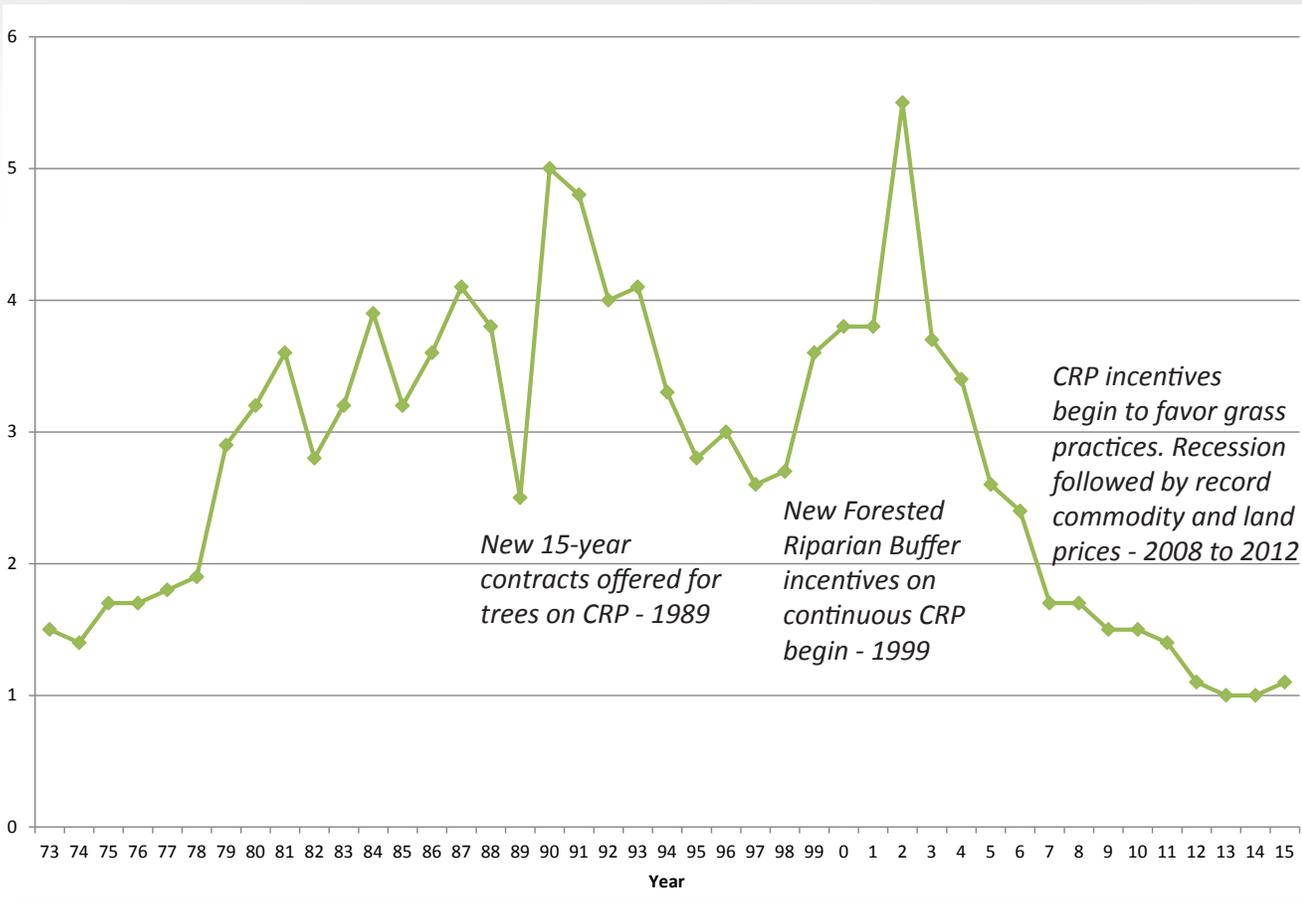
However, at the current sales of 1 to 1.2 million seedlings the gap between expenditures and revenues is still a significant financial problem for the Forestry Bureau and potentially for the Department (see chart 2).

The SFN’s financial struggles have led to delaying needed infrastructure and equipment improvements. These delays have created some significant backlogs in needed equipment upgrades and increases in maintenance costs. If these needs are not addressed the ability to function into the future will be seriously compromised.

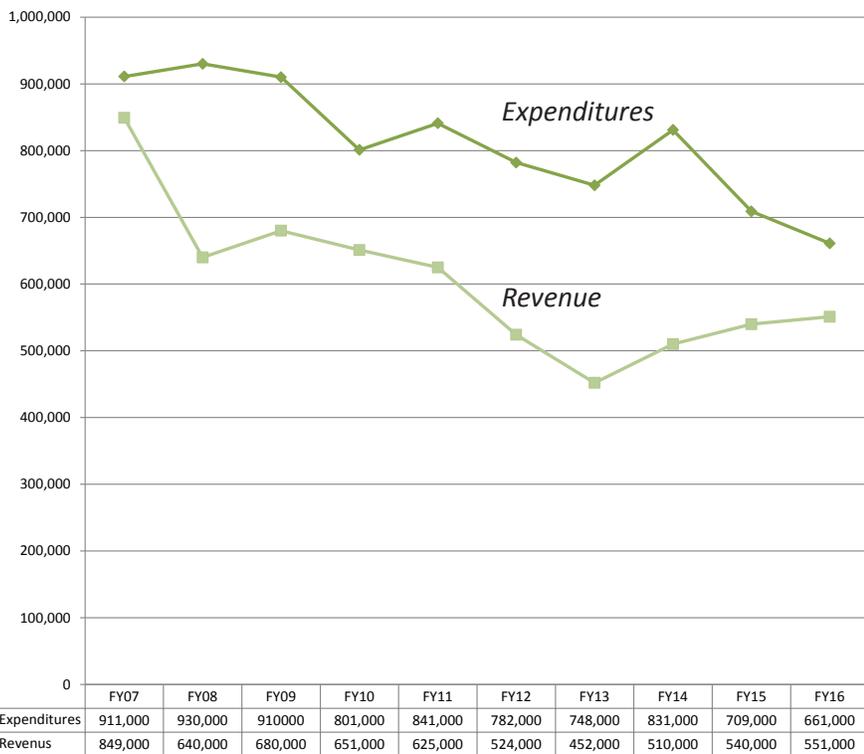
When stagnant seedling sales and increasing nursery expenditures made it apparent that the nursery status quo was no longer viable Department began to initiate additional marketing efforts. These efforts focused on creation and marketing of specialty tree and shrub packets of 250 plants. These packets marketed to landowner goals and to the outcomes provided by the contents of the packet. Fall color, high value hardwood, butterflies and birds, water quality, and wild edible packets were among the packets offered. These promotional efforts did result in sales of an additional 600 packets and generated an additional \$78,000 of revenue. Restrictions imposed on the SFN through Iowa Code and Administrative Rule inhibits the flexibility to incorporate other creative marketing and promotional efforts into the sales portfolio.



***Above: Orders bagged and ready for shipping. After trees and shrubs are lifted, they are hand-graded prior to bagging.***



**Chart 1: State Forest Nursery seedling sales in millions (1973-2016)**



**Chart 2: State Forest Nursery Revenue and Expenditures FY 2004- FY 2016**

“YOUR NURSERY STOCK IS ALWAYS OF CONSISTENT HIGH QUALITY. I HIGHLY URGE THE DNR TO DO EVERYTHING POSSIBLE TO KEEP THE NURSERY OPEN. IT IS SUCH AN ASSET TO LANDOWNERS”

Jill and Ed Wenger.  
landowners, Riverside, Iowa

## Strategies Considered

Along with increased marketing efforts the Department began to examine operational alternatives up to and including closing the facility. The following strategies were considered for solving the State Forest Nursery financial problem.

### Alternative 1: State General Fund or Other Allocation to the SFN:

This alternative requires an estimated general fund (GF) allocation of \$350,000 to the State Forest Nursery. This general fund increase combined with revenues at the 2015/2016 prices would allow the SFN to operate at a breakeven level. This alternative requires a change to Section 456A.20 of Iowa Code which says “Moneys appropriated to the department which are used in growing or handling nursery stock shall be used for growing or handling of the nursery stock for distribution only on state-owned lands.” A clarification of Section 455A.13 of Iowa Code; which says the nursery must “cover all expenses related to the growing of the plants”, would also be needed since there are numerous expenses to running a nursery (lifting, grading, shipping, cold storage, etc.) above and beyond simply growing the plants. In practice; however, the nursery has been expected to cover all of its operating expenses.

If the Code were clarified or changed to allow for general fund support of the State Forest Nursery, there is still the matter of where the \$350,000 would come from when budgets are tight and additional spending is minimal. However, if this option were utilized with the estimated operating capital \$500,000 from SFN sales and \$350,000 from GF equals \$850,000 total budget needed for operation.

*Option Rejected: This option was rejected due to existing Iowa Code and the fact that additional general fund allocation to the SFN seemed unlikely.*

### Alternative 2: Nursery Stock Price Increase:

A fifty cent price increase on large seedlings (17"-24") and a forty cent price increase for small seedlings (8"-16") were considered. This price increase would make large hardwood seedlings \$1.10 and small hardwood seedlings .85 cents. It would generate \$900,000 of nursery revenue. This alternative requires a change to Chapter 71 of Iowa Administrative Code to increase seedling prices.

*Option Rejected: There was some concern during the pre-clearance rule process about the doubling of prices from constituents and customers. After customer feedback and additional analysis the Department opted to reject this alternative.*

### Alternative 3: Combination State General Fund to the SFN and Price Increase:

This alternative would increase seedling costs by fifteen cents and generate \$150,000 bringing total nursery sales revenue to \$650,000. An additional \$200,000 of state general fund would be needed to provide revenue sufficient to operate the Nursery. This alternative would require changing Section 455A.13 of Iowa Code and Chapter 71 of Iowa Administrative Code to allow non-nursery generated funds to be utilized for SFN operations and to change prices.

*Option Rejected: This option was rejected for the same reasons as alternative one.*

### Alternative 4: Nursery Stock Price Increase, General Fund Allocation, Down-Size Nursery Operations:

This alternative combines alternatives 2 and 3 with efforts to reduce spending at the SFN through down-sizing operations. It would involve smaller price increases, some general fund assistance, and implementation of cost saving measures. This alternative would still utilize general fund to balance revenues and expenditures. It would require changing Section 455A.13 of Iowa Code and Chapter 71 of Iowa Administrative Code to allow non-nursery generated funds to be utilized for SFN operations and to raise prices.

*Option Rejected: This option was rejected for the same reasons as alternative one.*

### Alternative 5: Iowa Prison Industries takes over SFN Operations:

Iowa DNR and Iowa Prison Industries (IPI) examined moving all nursery operations to Southern Iowa and having IPI gradually take over those operations. Seedlings would be grown at the existing Montrose Nursery and grading and shipping would be done from inside the Fort Madison Prison.

*Option Rejected: This option was rejected by IPI due the high cost (\$730,000) of building the cooler(s) needed for such an operation and the expense of other logistical and infrastructure needs. Even though this alternative would also have included a transition period of two to three years so IDNR could transfer the knowledge needed to run such an operation to IPI employees, there were concerns about IPI staff having the specialized knowledge needed to grow a variety of tree and shrub seedlings.*

### Alternative 6: Supply Seedlings on Public Lands Only:

The nursery could operate solely with general funds or other state appropriated funds, per Iowa Code 456.20A,

to provide seedlings for public land use. State and county demand for seedlings averages about 55,000 seedlings per year. Depending on the work load, FTE's may have other duties to assist the Bureau such as State Forest land management and special projects or may be reassigned to other sections full time. This alternative would concentrate all SFN functions to the Ames facility. It would provide native seed source plant material to State Lands.

*Option Rejected: This option was rejected because the level of seedlings demand on public lands is not sufficient to justify running a capital and personnel intensive enterprise such as the SFN. This alternative would not provide any plant material to Iowa's private landowners and farmers.*

#### **Alternative 7: Partner with Iowa State University Natural Resources Ecology and Management Department:**

Following a meeting with citizens concerned with rumors regarding closure of the SFN and at the request of a legislator attending the meeting; the Department contacted Iowa State University Natural Resources Ecology and Management Department to determine if ISU NREM had an interest in partnering in the production of nursery stock.

*Option Rejected: Option rejected due to lack of interest from ISU NREM.*

#### **Alternative 8: Cease Growing and Selling Tree and Shrub Seedlings**

Ceasing seedling production would immediately end the financial losses associated with growing and shipping seedlings. However, it would also potentially displace five full time equivalent positions (1 Nursery Manager, 1 Administrative Assistant 1, and 3 NRT2s). If these employees were retained the funding keep them employed (\$370,000) would have to be found from other sources or they would possibly have to be laid off.

The SFN facility also houses the Bureau's Fire Program and serves as a gathering point for federal excess fire equipment which eventually makes its way to Iowa's rural fire departments to fight wildland fire. There would be a need to continue to maintain the infrastructure or find an alternative location and space for the Fire Program.

Discussions about ending seedling production at the SFN were met with strong resistance from landowners, forestry contractors, and the general public. There is currently only one private sector nursery in Iowa that produces bare root conservation stock (it also produces and sells windbreak and landscape trees and shrubs). The owner of that nursery indicated to the State Forester

that he was not interested in increasing production of conservation seedlings because "there is no money in bare root seedlings".

Closing the SFN would have a significant negative impact on conservation and forest health. The SFN guarantees a baseline amount of Iowa grown native seed source plant material. Without the SFN and with no significant private sector conservation nurseries, Iowans would have to seek plant material from public and private sector nurseries outside of the state. This plant material would not be well adapted to the state climate and would likely be more susceptible to frost damage and insect and disease attacks. Shipping in significant amounts of conservation plant material also increases the opportunities to spread native and exotic non-native pests such as thousand cankers disease of walnut, sudden oak death, emerald ash borer, gypsy moth, and Asian long-horned beetle. The long term effects on Iowa's native forests could be devastating and irreparable if these pests were imported and then jumped to our native woodlands.

*Option Rejected: This option was rejected due to public opposition and concerns about the negative impact nursery closure would have on forest health.*

#### **Alternative 9: Nursery Stock Price Increase and Down-Size Nursery Operations:**

This alternative combines down-sizing SFN operations and increasing prices at a lower level than Alternative 2. Prices for large seedling stock would be ninety cents and small stock would be sixty five cents. At these prices, SFN seedlings are slightly less cost than the prices of private nurseries in surrounding states.

The satellite nursery near Montrose, Iowa on Iowa Prison Industry land would be closed to reduce staff and equipment expenses. Closing the Montrose facility allows for focusing all equipment and staff resources to operating the Nursery in Ames. It allows existing staff to work more efficiently because they do not lose productivity when traveling from one nursery to another.

The bulk of SFN sales are to customers who are participating in landowner incentive programs (CRP, EQIP, REAP F/NG). These programs reimburse landowners for the installation of tree and shrub based conservation practices. The DNR Forestry Bureau is working with the appropriate agencies to adjust their reimbursement payment levels to reflect the increased cost of seedlings on tree planting projects. The out-of-pocket costs to landowners of this price increase will range from \$21 to \$105 per acre depending on the programs in which they participate.

*Option Selected: Prices were increased on October 5, 2016 and it is expected that revenues should be around \$850,000. This revenue level would allow the nursery to cover current expenses; however, it should be noted that expenses continue to increase. That price increase became effective on October 5th, 2016. Prices were increased twenty five cents on small stock (8"-16") and thirty -five cents on large stock (17"-24"). The last price increase on small stock was in 2004 and the last price increase on large stock was in 2009. That means the price on small stock increased just over two cents per year on average since 2004 and the price on large stock was increased five cents per year since 2009.*

## **Legislative Recommendations**

### **1. Change Iowa Code to allow the Department to annually set prices for seedlings.**

Change section 455A.13 **from** "the department shall adopt administrative rules establishing a range of prices of plant material grown at the state forest nurseries to cover all expenses related to the growing of the plants" **to** "the director shall annually review nursery expenditures, revenues, and market conditions to establish minimum ordering quantities and set a range of prices for plant material grown at the state forest nurseries to cover all expenses related to the growing of the plants."

**Explanation:** The Department raised prices on plant material to generate the income needed to operate the SFN on October 5, 2016. Previous to the 2016 price change, prices were last increased on large stock in 2009 and on small stock in 2004. The current price increase took almost two years to implement due the length of time required to complete the pre-clearance rule process

***Western Iowa's Wilson Island State Recreation Area benefitted from the use of State Forest Nursery seedlings to repair damage from the flood of 2011.***



and the actual rule process. Because the SFN is expected to function as a business covering all its costs it needs the flexibility to nimbly respond to changing seedling demand, operating costs, and government incentive programs. With the capacity to annually increase or decrease prices small adjustments to price can be made as needed. The most recent price increase of thirty five cents for large stock and twenty cents for small stock would have amounted to a five cent and two cent annual increase respectively if it could have been phased in slowly over time. The ability to implement small price changes is a significant market advantage over waiting longer to implement a much larger increase.

Recently the SFN had a customer inquire about purchasing 100,000 seedlings. This customer was required to get three bids. In these situations the capacity to offer a volume discount would be helpful in moving product and increasing revenues.

### **2. Change Iowa Code to allow the Director the flexibility to sell bareroot conservation stock in smaller quantities.**

**Explanation:** Changing landowner demographics and landowner incentive programs have led to a decline in large scale tree planting projects. From 1989 through 2002, individual twenty to fifty acre tree planting projects were common and plantings as large as one hundred-fifty acres were not uncommon. Stagnant tree planting incentives and increasing prairie and herbaceous planting incentives and practices have led to the decline of large scale individual tree planting projects. However, according to the USDA Forest Service Forest Inventory Analysis the number of small acreage woodland owners continues to rise. During both the pre-clearance rule

making procedure and the rule making process itself; citizens made it clear that ordering in minimum quantities of 500 seedlings or ordering a specialty packet of 200 seedlings was more plants than they could handle. They asked us to strongly consider lowering the minimum ordering numbers.

Many private and public nurseries offer smaller quantity sales and increased cost per seedling, while offering their lowest price for orders over 1,000 seedlings. The ability to annually adjust price and set quantities would meet customer need and help make the Iowa State Forest Nursery financially viable into the future.

### **3. Remove customer obligations from Iowa Administrative Code 571 Chapter 71. Allow purchasers of seedlings to sell SFN sell stock with roots attached.**

**Explanation:** Current Iowa Administrative 71.2(3)d lists several obligations that customers must follow if they wish to purchase SFN seedlings. The rule states, “All purchasers shall be required as a part of the plant order, to certify that the plants purchased will not be sold with

roots attached.” This rule prohibits Iowa landscape nurseries from purchasing bareroot seedlings from the SFN. Typically these nurseries purchase bareroot liner stock from nurseries in Oregon or other out-of-state nurseries, replant the stock, grow it to landscape size (5-12 feet) and then sell the plants. Allowing nurseries the options of purchasing SFN stock creates opportunities for private sector nurseries to utilize native plant material, which creates healthier individual trees and further reduces the chances of importing insect or disease pathogens on infected nursery stock.

### **4. Repeal Section 456A.20(2) of Iowa Code requiring ten cents for every hardwood and five cents for every conifer sold be deposited in the Forest Management and Enhancement Fund.**

**Explanation:** The SFN is struggling to generate the revenue needed to meet expenses. The added burden of having ten percent of the income generated from seedling sales transferred to other accounts is detrimental to the long term viability of the facility.

## **Conclusion**

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The State Forest Nursery has played a valuable role in Iowa’s conservation past. It will undoubtedly have an even more valuable role to play in Iowa’s conservation future due to the growing threat of exotic invasive woodland pests and invasive species and the continued emphasis on improving water quality and meeting nutrient reduction strategy goals. However, current legislation and rules are limiting flexibility and stifling innovation through the concrete setting of prices and sales quantities. The result has been the creation of market barriers that when combined with decreasing product demand; have pushed the SFN to the brink of economic collapse.

To avoid that collapse the Department has spent the last two years examining options and analyzing the situation. It has considered nine alternatives and talked extensively to stakeholders and other government entities.

It was evident that the SFN is highly prized for its ability to deliver affordable conservation seedlings to Iowans. When it was announced the Department was looking at a multitude of options up to and including closure of the SFN, Iowa citizens and farmers contacted their legislators and demanded a meeting with DNR leadership to discuss their concerns regarding any closure of the facility.

Comments received from stakeholders during both the pre-clearance and official rules process expressed strong support for finding a way to continue SFN operations. Over eighty percent of comments received during the rule making process favored a price increase if it kept the SFN open. The overwhelming support for the continuation of the SFN and its conservation mission led to adoption of a seedling price increase. It is hoped that the price increase will stabilize the nursery financially for the next few years; however, without implementation of the suggested changes and increased flexibility it is only a matter of time before the Nursery again finds itself on the brink of closure.

Clearly the SFN, in some sense, represents the fulfillment of the conservation ideal. It represents the notion that state government can still do positive things in working with people to help them improve their environment and their quality of life. It represents the idea that we can still reforest our woodlands and restore forest ecosystems; we can still improve water quality by reducing nutrients and sediment in our rivers and streams through well placed forested riparian buffers and bottomland hardwood tree plantings; and we can still attract wildlife to our property for hunting and for viewing. Above and beyond these very practical considerations; the State Forest Nursery represents the idea that as a people and as a State we can still aspire to greater things, we can still aspire to stewarding the natural resources with which we are blessed, and that we can still come together to make those aspirations a reality.



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