

State Forest Nursery Program Fiscal Year 2021 Legislative Report

05/17/2022

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Statutory Reference

Minnesota Statutes, section 89.36

PRODUCING AND PROCURING PLANTING STOCK

Subd. 4. **Annual report.** The commissioner (of natural resources) shall submit an annual report to the legislature relating to the production of planting stock at state nurseries. The report must include the following: sale figures; income figures; and expenses for operations and administration.

Minnesota Statutes, section 3.197

Required Reports

A report to the legislature must contain, at the beginning of the report, the cost of preparing the report, including any costs incurred by another agency or another level of government.

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Executive Summary

The Minnesota State Forest Nursery, located ten miles south of Akeley in the Badoura State Forest, grows conifer and hardwood seedlings for reforestation on public and private lands. It is currently the only large-scale Minnesota nursery for native, conservation-grade conifer and hardwood seedlings. Primarily supported by seedling sales, the nursery is known for seed sourcing controls, seed extraction and cleaning, and tree cultivation that creates high-quality seeds and seedlings to support public and private reforestation efforts.

The nursery sold 2.9 million conifer and hardwood seedlings during Fiscal Year (FY) 2021. Forty-four percent (44%) went to public land reforestation efforts and fifty-six percent (56%) went to private land reforestation. Sales were well above the 415,000 sold in FY2020, but below the 3.2 million three-year average prior to the COVID-19 onset. FY2021 receipts for seedling sales were \$1,306,076, direct seed sales for aerial seeding and delivering to contract growers totaled \$186,325, and interest and cash overages equaled \$1,104. This results in total nursery receipts of \$1,493,505 in FY2021; total expenses were \$1,433,284. More information about overall FY2021 revenues and expenses can be found in Appendix 1.

The FY2021 year-end fund balance in the State Forest Nursery Account was \$555,274. This ability to maintain a positive fund balance from FY2021 into FY2022 is important to the long-term health of the State Forest Nursery Account. A fund balance of at least \$1.5 million is ideal to withstand unforeseen disruptions that may occur in a fiscal year such as adverse weather events, crop disease, or the recent pandemic. For example, the State Forest Nursery Account experienced a \$919,048 net loss in FY2020 due to impacts of the COVID-19 pandemic.

While FY2021 saw a small increase in net proceeds, the State Forest Nursery continues to be affected by the COVID-19 pandemic. The necessary cancellation of the spring seedling harvest in calendar year 2020 meant that fewer seeds were planted that year; less maintenance was also conducted on existing seedling beds. Given that it takes two to three years to produce conservation-grade seedlings for reforestation, the impacts from calendar year 2020 will manifest primarily as a reduction in seedlings available for sale in FY2022. The number of seedlings sold from the State Forest Nursery is expected to be about 2.5 million in FY2022, down from the 2.9 million sold in FY2021.

Seedling prices remained the same in FY2021 as they were in FY2020. The Minnesota Department of Natural Resources (DNR) will complete a pricing analysis in FY2022 and adjust pricing as needed in FY2023 to account for the effects of increased demand and inflationary pressure on materials (e.g., source seed, fertilizer and pesticides) and labor.

The DNR is in the process of increasing production at the nursery -- within the statutory limitation of 10 million tree seedlings per year -- in response to 2021 legislation that provided \$1.25 million each year in FY2022 and FY2023 for *“accelerated tree planting and increasing seed collection and conservation-grade tree seedling production at the state forest nursery and providing cost-share incentives to increase tree planting.”*¹

¹ Laws of Minnesota, 2021, 1st Special Session, Chapter 6, Subdivision 4(i).

Climate change mitigation and adaptation will continue to drive demand for increased production and seed sourcing for reforestation and afforestation. Carbon sequestration, water quality, wildlife, and the forest products industry all depend on healthy forests. New capital investments are needed to ensure the nursery can effectively sustain its long-term role in meeting Minnesota's current and future reforestation needs. Governor Walz and Lt. Governor Peggy Flanagan's 2022 Budget to Move Minnesota Forward includes bonding funding for the DNR to modernize seed extraction and seedling storage facilities at the State Forest Nursery, as well as funding for replanting and seeding trees on state lands following timber harvest. Additional information about specific challenges, opportunities, and modernization needs facing the nursery are discussed in more detail in the report.

Introduction – State Forest Nursery Program, Division of Forestry

The Minnesota State Forest Nursery began producing conservation-grade seedlings for reforestation in the early 1930s. To date, more than one billion seedlings from the nursery have been planted on public and private lands.

Minnesota Statutes, section [89.36](#), authorizes the nursery to produce, exchange, or purchase up to 10 million seedlings each year. Cones and seed are prepped and cleaned for aerial seeding or planting to grow seedlings. After two or three years of growing, seedlings are lifted from the field and shipped to final planting or reforestation sites across Minnesota. To supplement State Forest Nursery operations, each year 100,000 to 1 million seedlings are purchased from private producers for resale.

Seedlings purchased from the nursery must be used to establish or reforest harvested lands, wood lots, windbreaks, and shelterbelts or for erosion control, soil and water conservation, environmental education, or permanent food and cover for wildlife. Conservation-grade seedlings grown at the nursery differ from landscape-grade seedlings produced in many private nurseries. Conservation-grade seedlings are smaller (5-12 inches long), which makes them easier to plant in large quantities. They are also produced from seed collected in Minnesota, thereby helping to preserve and promote local genetic diversity and ensure the trees will grow where they are planted. The nursery grows conifer and hardwood tree species, as well as some shrubs, for these purposes.



State Forest Nursery Mission Statement

Our mission is to produce bare-root seedlings that are Minnesota-hardy, high quality, and reasonably priced for public and private landowners. We are dedicated to helping protect the sustainability of Minnesota's diverse forest resources and continuing our state's proud tree planting heritage.

Sales and Production Summary, Fiscal Year 2021

In FY2021, the nursery shipped 2,902,500 tree and shrub seedlings. Of these, the nursery produced 2,615,500 seedlings and 287,000 seedlings were purchased from licensed private producers or obtained via trades with other state or federal government nurseries (Figure 1). Public lands received about 44 percent and private lands received 56 percent of the seedlings (Figure 2).

The nursery grows and sells three types of seedlings: conifer, hardwood, and shrub species. The majority of trees grown and sold are conifers (Figure 3). Shrubs are sold in much smaller quantities, primarily to private

customers. Shrubs include dogwood, wild plum, chokecherry, and other small woody plants. These varieties are often sold in mixed packets to landowners for wildlife habitat. Table 1 contains a complete list of seedlings sold in FY2021. The revenue generated by seedling sales at the nursery in FY2021 was \$1,306,076. Total revenue at the nursery for FY2021 was \$1,493,505. A breakdown of revenue sources is included in Appendix 1. A description of accounts receivables is included in Appendix 2.

Figure 1: FY2021 Seedling Sources

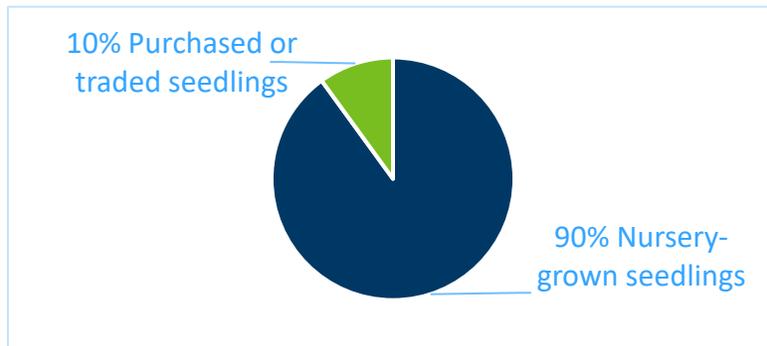


Figure 2: FY2021 Seedling Distribution

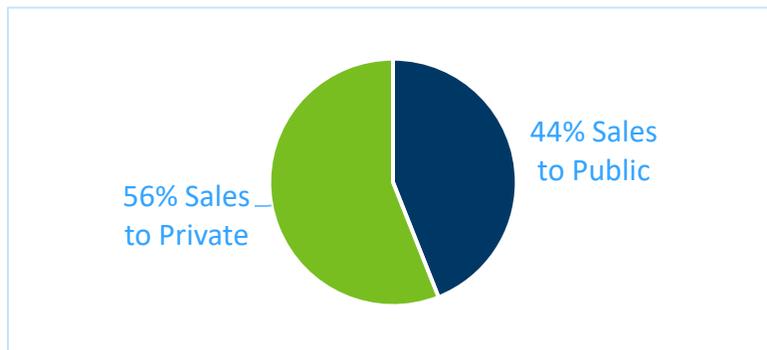


Figure 3: FY2021 Seedling Sales by Types

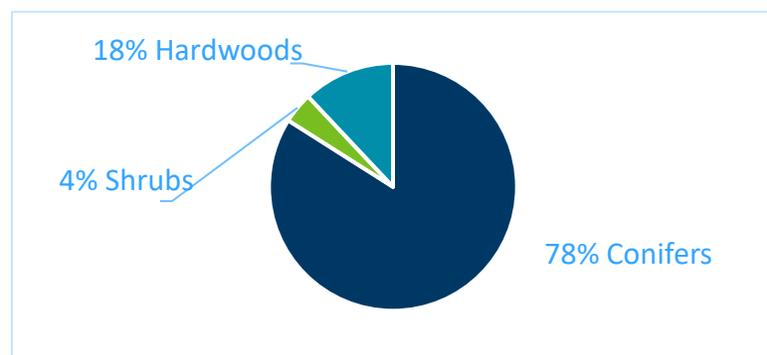


Table 1: FY2021 Seedling Sales by Species and Producer

Product	State-produced Seedlings	Purchased/Traded Seedlings	Total Seedlings Shipped
Chokecherry	0	20,000	20,000
Juneberry	5,000	10,000	15,000
Wild plum	0	27,500	27,500
Hackberry	0	15,000	15,000
Red osier dogwood	0	37,000	37,000
Nannyberry	0	16,000	16,000
Black cherry		2,000	2,000
Red pine seedlings	739,200		739,200
Red pine transplants	91,950		91,950
Jack pine seedlings	126,300		126,300
White pine seedlings	213,950		213,950
White pine transplants	29,650		29,650
White spruce seedlings	586,650	159,500	746,150
White spruce transplants	98,900		98,900
Black spruce seedlings	70,300		70,300
Black spruce transplants	400		400
Balsam fir seedlings	80,500		80,500
Balsam fir transplants	24,500		24,500
Red cedar seedlings	17,000		17,000
Tamarack	3,300		3,300
Bur oak	62,150		62,150
Silver maple	36,900		36,900
White oak	44,900		44,900
Red oak	330,000		330,000
Sioux land poplar	8,050		8,050
Swamp white oak	43,400		43,400
White cedar	1,200		1,200
Kentucky coffee tree	1,300		1,300
Totals	2,615,500	287,000	2,902,500

In FY2021, expenses totaled \$1,433,284. Of this, \$855,482 were payroll expenses and \$577,802 were non-payroll expenses (Table 2). Seasonal and part-time labor accounted for more than half of the payroll expenses (Table 3). Supplies such as fertilizers, pesticides, shipping boxes, and advertising accounted for almost half (48 percent) of the non-payroll expenses (Table 4). The FY2021 expenses compared to FY2020 were up over 24 percent. This was primarily due to variable salary and supply costs associated with resuming the spring harvest and shipping operations after the COVID pandemic disruptions of FY2020. The nursery continues to work on reducing expenses. FY2021 expenses remain below the 10-year average. A 10-year summary of revenues and expenses is included in Appendix 3.

Table 2: Nursery Expense Breakdown

Type	Number	Percent
Payroll expenses	\$855,482	60%
Non-payroll expenses	\$577,802	40%
TOTAL	\$1,433,284	100%

Table 3: Payroll Expenses Breakdown

Type	Number	Percent
Full-time salary	\$352,768	41%
Part-time and seasonal salary	\$479,596	56%
Other employee costs (includes unemployment and worker's compensation)	\$23,118	3%
TOTAL	\$855,482	100%

Table 4: Non-payroll Expenses Breakdown

Type	Number	Percent
Supplies, printing and advertising	\$275,413	48%
Fleet and travel	\$67,211	12%
Computer systems and communication	\$65,715	11%
Utilities	\$37,080	6%
Other operating costs	\$68,367	12%
Agency costs	\$44,107	8%
Equipment and repairs	\$19,909	3%
TOTAL	\$577,802	100%

COVID-19 Financial and Production Impacts

The COVID-19 pandemic affected nursery production in FY2021 and will continue to affect seedling output for the next couple of years. Some of the areas affected are:

1. The social distancing and gathering limitations necessitated by the COVID-19 pandemic, along with a lack of seasonal work crews, affected weeding activity and pesticide and fungicide applications during the summer and fall of 2020. The DNR did what it could with existing staff, but some seedlings were lost.
2. Summer 2020 bed seeding was reduced because of limited crews and social distancing requirements. As a result, seedling inventory will be reduced for 2022 and 2023 sales. Additionally, some seedlings, particularly transplants, will be unavailable in 2022 because seedlings were not transplanted in 2020. These impacts will result in reduced seedlings available for sale -- and reduced revenues -- for at least the next two years.
3. The nursery purchases most hardwood shrubs species from private nurseries to assemble into multi-species packets of 500 seedlings each. The nursery sells the packets to private landowners to improve wildlife and pollinator habitats. Suppliers of this hardwood shrub stock are also experiencing shortages, which affect nursery sales and costs for the packets. The number of seedlings available from the state's largest hardwood shrub provider decreased by 49% from August 2020 to August 2021. The number of shrub species available has dropped and the price of some species is increasing. The nursery is currently evaluating future availability and costs of stock from private suppliers.
4. Seed and cone collection activities increased from 2,057 bushels in FY2020 to 2,485 in FY2021. Currently, private individuals (often referred to as "pickers") collect (or "pick") seed and cones; the nursery buys the seed and cones directly from the pickers at the nursery site or through Forestry Division field offices. The pandemic prompted an increase in outdoor activities, which may account for the increase in collection in FY2021. Despite this overall increase, seed/cone collection for certain species (e.g., black spruce) fell short of the need in FY2021, and the anticipated longer-term trend in collection activity is downward. Pickers are aging and few younger people are taking up this activity, creating a long-term challenge. Cone picking can also be difficult work, and a tight labor market may lead people to shift from picking to less challenging endeavors. Early indications suggest that FY2022 seed and cone collection will be lower than FY2021.

Challenges and Opportunities

The nursery faces many current and future challenges, including impacts related to climate change, labor shortages, aging facilities and infrastructure, and weather/disease risks.

Accelerated Seedling Production

The two-year, \$2.5 million funding provided by the legislature and governor during the 2021 Legislative Session will support the following actions to increase seedling production at the State Forest Nursery:

- Upgrading existing fields and sowing additional fields
- Preparing fields before planting to suppress weeds and fungus growth, improve field densities, and produce better survival rates
- Replacing older, less-efficient fertilizer and pesticide applicators

- Upgrading and replacing tractors that are beyond their recommended age
- Installing a new irrigation well and pump
- Hiring additional seasonal staff

This investment will allow the nursery to plant sufficient seed in FY2022 to grow 6 million seedlings; these seedlings will be available for harvest in two to three years. The nursery will focus the increased production on species desired by private landowners for reforestation. For example, the FY2022 planting plan calls for increasing oak species by approximately 800,000 seedlings.

Equipment and facilities improvements are needed to sustain this increased level of seedling production. (See Modernization section below.)

Action item: The DNR will continue the effort to accelerate seedling production and more efficiently meet the needs for reforestation and afforestation on private and publicly managed land.

Nursery Growing Capacity, Climate Change and Reforestation

Climate change is anticipated to negatively affect the northern boreal forests. Adaptation efforts will be needed to increase hardwood species in areas historically populated by conifers, which will directly affect the nursery's production capacity. For example, a planted nursery bed of red pine produces approximately 40,000 sellable seedlings. By contrast, a bed of maple or oak produces only about 15,000 seedlings. If production shifts from conifers to hardwoods, more planting beds/area will be required to grow the same number of seedlings.

Minnesota's forests play an important role in the sequestration and long-term storage of atmospheric carbon. One important strategy to mitigate climate change is to increase the amount of carbon that forests store in trees and in forest soils. Reforestation, increasing the tree density in existing forests, and planting new forests on open lands where forests once stood, are among the most promising opportunities to achieve long-term offsets to carbon emissions.

The DNR is working with other state agencies and the Governor's Climate Change Advisory Council to develop a Climate Action Framework. This framework likely will include a call for reforestation and forest adaptation to help Minnesota mitigate and adapt to climate change. The Nature Conservancy has also developed a Minnesota Million initiative that proposes to reforest one million formerly forested acres in Minnesota by 2045. Other agencies, boards, nonprofits, and businesses -- including the Minnesota Forest Resources Council -- have identified reforestation as an important climate strategy for Minnesota.

The State Forest Nursery by itself cannot supply all of the conservation-grade seedlings that will be needed to implement these reforestation and forest adaptation goals and strategies. While there is capacity to further increase production at the nursery, increased seedling production will also be needed at tribal and private nursery facilities. Toward this end, the Minnesota Forest Resources Council recently passed a resolution that recommends enhancing public and private forest nursery capacity in Minnesota (see Appendix 4).

Potential Action item: Prepare for climate change-driven forest adaptation and reforestation needs by producing more hardwood species, collecting more hardwood seed, and increasing hardwood seedling production.

Seed and Cone Collection

Growing more trees requires planting more seeds, which in turn requires increases in seed and cone collection. The DNR can no longer solely rely on the diminishing population of pickers to supply the volume of seeds and cones needed to meet the increasing seedling demands. Maintaining a robust, diversified, sustainable seed procurement program is critical to increasing long-term nursery production, and requires investment of time and resources. The Division of Forestry is currently bolstering efforts in this area, for example by creating a seed procurement specialist position, and reviewing the seed collection operation to ensure adequate seed can be collected to meet the increased production needs. Two options that are being explored to increase seed production are increasing the seed orchards in Minnesota and contracting for seed and cone collection rather than depending only on pickers paid per bushel.

Seed Orchards

The DNR has a few small seed orchards around the state. These orchards consist of fields of trees that are maintained solely for seed production. Various techniques, such as grafting the tops of high-production mature trees onto younger stock, allow for greater production and easier seed gathering in seed orchards. One big advantage offered by seed orchards over seed and cones gathered from existing forests is the ability to select seed from the healthiest and highest quality trees to improve the productivity and resiliency of future forests.

Several states are exploring revitalizing or establishing seed orchards to meet growing seed demand. In Minnesota, the General C.C. Andrews State Forest Nursery, which was decommissioned in 2013, presents an opportunity to establish additional seed orchards at relatively low cost given that the facility includes established, though currently idle, growing fields and has other infrastructure needed for a seed orchard operation, such as irrigation wells.

Contract seed and cone collection

Contract seed and cone collectors are another possibility for securing additional seed. The DNR currently advertises the need for seed -- and the compensation amounts, which are typically per bushel or pound of seeds or cones collected -- via the DNR website, news releases and social media, and provides information regarding how and where to pick. Beyond that, the DNR relies on pickers to decide if, when and what species of seed and cone to collect, and to bring their collected seeds and cones to designated DNR sites for purchase.

In contrast, the states of Illinois and Washington both rely heavily on contract pickers. Contract agreements are executed between the state agency and pickers prior to collection activities; these contracts define where seed may be collected and how the picker will be paid. This practice has several advantages over Minnesota's approach. Foresters in the field can identify areas and species showing good seed crop production and point contract pickers to areas where cones can be more readily retrieved. Contracted workers can be trained in more detail and certified to identify cone and seed quality. Contracts also give the state agency better control over seed sourcing by directing pickers to specific tree stands with superior growth and form traits, toward tree species with bumper crop years, or to collect seed and cone from specific tree species to address seed inventory shortages.

Action item: Explore establishing more seed orchards and contracting with pickers to address seed supply challenges.

Bare-root and Plug Seedlings

Currently, no private or public nursery in Minnesota produces large enough quantities of conservation-grade “plug seedlings” (sometimes called “containerized seedlings”) to meet the State of Minnesota’s reforestation needs. Aptly named, the roots of plug seedlings are surrounded by a soil plug and are grown in containers inside a large greenhouse. Plug seedlings, which have better survival rates after planting, are strongly preferred over bare-root seedlings (the type of seedling currently produced at the State Forest Nursery) for some conditions. Producing plug seedlings at the State Forest Nursery would reduce Minnesota’s current dependence on a single, out-of-state commercial grower of plug seedlings and help ensure the state has the seedling stock needed for reforestation and climate mitigation efforts.

One of the challenges associated with bare-root seedlings is the short window of opportunity to harvest (i.e., “lift”) the seedlings from the growing beds at the nursery and transport and plant them at reforestation sites. The lifting, sorting, packing, shipping, and final planting of bare-root seedlings all must occur in a five- to six-week window each spring between when frost leaves the ground and when the seedlings break their winter dormancy. In contrast, plug seedlings are more easily stored and have a wider planting window. This means that more seedlings can be planted each spring and land managers can store seedlings if needed to avoid planting in conditions that reduce seedling survival rates. Ultimately, a combination of bare-root and container-grown plug seedlings is needed to provide the best options to successfully reforest more acres in Minnesota.

Potential action item: Pursue the initial investment and policy change necessary for the DNR to produce plug seedlings at the State Forest Nursery to: 1) alleviate dependence on a single, out-of-state commercial grower, 2) lengthen the planting season, and 3) help meet the increased demand for seedlings for reforestation and climate mitigation efforts.

Labor

Skilled, temporary manual labor is always in high demand. Other local seasonal agricultural operations such as potato growers have planting and harvesting timelines that coincide with State Forest Nursery staffing needs. An additional challenge is the nursery’s location in a small, rural community. The seasonal workers who traditionally support the spring seedling lift and shipping season are retiring. To date, younger workers have not shown as much interest in replacing them.

To mitigate labor shortages, the nursery has employed contract work crews to sort and grade seedlings during the spring lift. Contract crew performance is proving to lower nursery costs and improve output. The contract crews are comprised of experienced workers and are a cost-effective approach to mitigating local and seasonal labor shortages.

Action item: Continue to hire contract workers to sort and grade seedlings during the spring lift to supplement the locally available and interested workforce.

Modernization

New capital investments are needed to ensure the State Forest Nursery can effectively sustain its role in meeting Minnesota’s current and future reforestation needs. Governor Walz and Lt. Governor Peggy Flanagan’s 2022 Budget to Move Minnesota Forward includes bond funding for the critical modernization efforts described below.

Modernized seed extraction

Extracting seed from cones is a critical aspect of the nursery's operations to ensure climate-appropriate seed is available. Seed is used for both planting seedlings at the nursery and aerial seeding of some timber harvest sites. The current seed extraction equipment, which dates from the 1980s, is costly to run, inefficient, and expensive or becoming impossible to repair. New seed-extraction equipment using up-to-date technology will improve energy efficiency, reduce water use, and decrease seed extraction time.

Increased seedling storage capacity

Reliable climate-controlled cooler storage is crucial to ensure healthy, high-quality seedlings are available each spring. Seedlings lifted in the spring must be temporarily stored in large coolers before shipping to their final planting sites. The current coolers at the nursery are undersized, lack reliable climate and humidity controls, and are positioned in a way that causes production inefficiency.

Furthermore, considering the scientific predictions that Minnesota's future climate will favor hardwood trees, the nursery needs the capacity to produce more hardwood seedlings. This will require additional cooler space because hardwood seedlings that are needed for central and southern Minnesota plantings are lifted in the fall, stored in coolers over winter, and shipped in the early spring before the ground at the nursery has thawed enough for the spring lift. The nursery has barely enough seedling storage capacity to meet current needs, let alone the anticipated increased needs of the future.

Improved energy efficiency and outage protection

In the event of a prolonged power outage or equipment failure, tens of thousands of dollars of refrigerated, processed seed and seedlings are currently at risk of loss due to inadequate and aging backup power systems. Generators and automated generator hook-ups that can operate in a power failure are critically needed to address this risk. Installing temperature and humidity regulation systems with backup power support would also improve seedling quality and energy efficiency.

Action item: If the necessary funding is appropriated by the Legislature, the modernization efforts noted above will allow the DNR to enhance current and future seedling production through improvements in seed extraction, seedling cold storage capacity and production efficiency, and through reduced risk of seed and seedling loss.

Summary

The State Forest Nursery continues to play a vital role as the only large-scale Minnesota supplier of conservation-grade seedlings for reforestation efforts on state-administered and private lands. In FY2021, the nursery supplied 2.9 million seedlings for reforestation efforts on public and private land.

The COVID-19 pandemic effects will continue to impact seedling sales for the next two years. Meanwhile, the DNR is increasing seedling production at the nursery with one-time funding provided by the 2021 Legislature. Additional investment is needed to modernize the nursery facility and further expand production so that the State Forest Nursery -- together with private and tribal nursery facilities -- can meet the demands of current and future reforestation needs.

Appendices

Appendix 1: FY2021 Statement of Revenues and Expenses, State Forest Nursery Account*

Description	Amount (\$)
Balance beginning FY21	552,084
Revenues	
Nursery Seedlings	1,306,076
Nursery Seed**	186,325
Investment Income	1,104
Total Revenues	\$1,493,505
Expenses	
Salary and Other Compensation	855,482
Supplies and Expenses	577,802
Equipment and Capital Improvements	0
Remaining Encumbrances in FY21	57,031
Total Expenses	\$1,490,315
Ending Balance Roll forward to FY22	\$555,274
FY2021 Revenues minus expenses	\$3,190

*Adjustments are used to cancel and/or correct invoice amounts and write-offs (e.g., people canceling or changing their seedling order amounts)

**Seed is sold to reforest state-administered lands either through direct aerial seeding or distribution to contract growers to be delivered back to the Division of Forestry for planting on state lands.

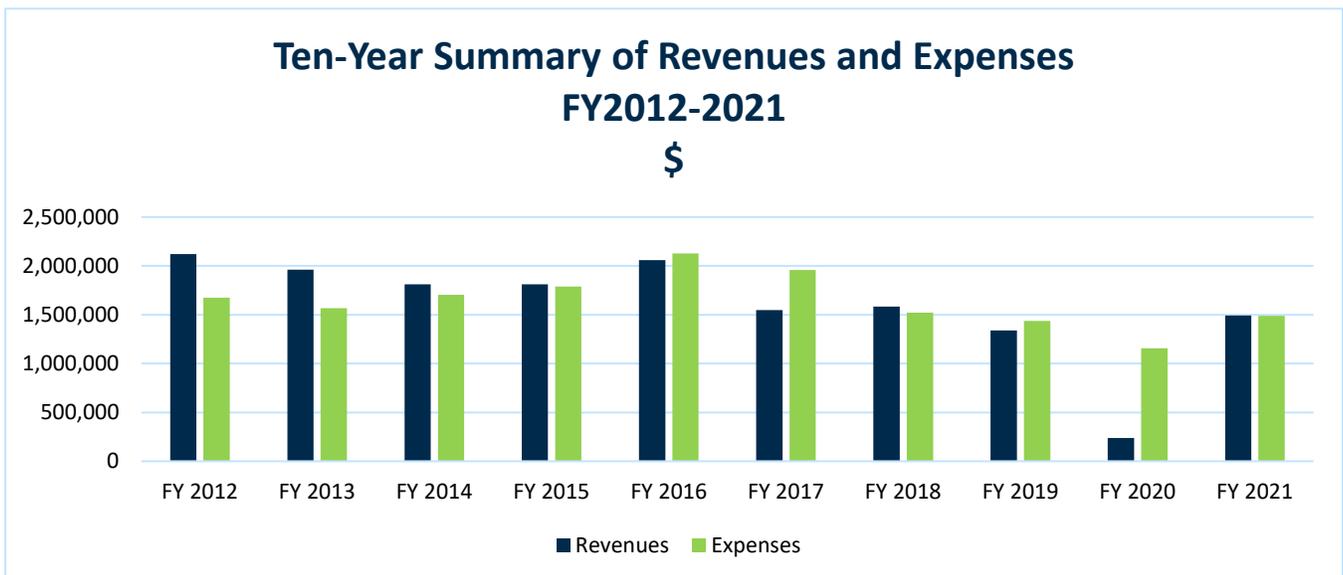
Appendix 2: FY 2021 Accounts Receivables and Cash Sales*

Description	Amount (\$)
Receivables remaining from prior fiscal years	9,713
FY21 Accounts Receivables	661,920
FY21 Write Offs and Adjustments	(1,440)
Total Receivables	\$670,192
Outstanding Receivables in FY21	670,192
Collected on Receivables in FY21	660,509
Remaining Receivables to be collected in FY22	\$9,683
Collected Cash Sales in FY21	835,175
Collected on Receivables in FY21	660,509
Refunds in FY21	(2,179)
Total Collected Revenue FY21	\$1,493,505

*WIRES reports were used for the amounts billed, collected, and adjusted. WIRES is the DNR's revenue/receivable system and stands for Web Integrated Revenue/Receivable System.

Appendix 3: Ten-Year Summary Analysis of Revenue and Expenses FY2012-2021

Year	Beginning Balance \$	Revenues \$	Expenses \$	Ending Balance \$
FY 2012	1,013,761	2,121,324	1,674,691	1,460,394
FY 2013	1,460,394	1,962,297	1,567,588	1,855,103
FY 2014	1,855,103	1,812,082	1,703,114	1,964,070
FY 2015	1,964,070	1,810,865	1,787,504	1,987,431
FY 2016	1,987,431	2,058,630	2,127,752	1,918,310
FY 2017	1,918,310	1,546,417	1,956,735	1,507,991
FY 2018	1,507,991	1,583,790	1,522,104	1,569,678
FY 2019	1,569,678	1,339,985	1,436,427	1,473,236
FY 2020	1,473,236	236,926	1,155,975	554,188
FY 2021	554,188	1,493,505	1,490,315	557,378
3 Year Average	1,199,034	1,023,472	1,360,906	861,601
5 Year Average	1,404,681	1,240,125	1,512,311	1,132,494
7 Year Average	1,567,843	1,438,588	1,639,545	1,366,887
10 Year Average	1,530,416	1,596,582	1,642,221	1,484,778





Minnesota Forest Resources Council Resolution 2022-2

“Contributing to Minnesota’s Climate Change Goals by Increasing Minnesota Nursery Capacity”

1. **WHEREAS**, Minnesota’s forests provide critical benefits for the economy, recreation, wildlife, clean water, biodiversity, and greenhouse gas mitigation; and
2. **WHEREAS**, the state forest nursery once produced over 12 million seedlings per year to support those benefits, but now produces < 4 million; and
3. **WHEREAS**, the State Nursery is outdated, inefficient, and incapable of producing containerized seedlings; and
4. **WHEREAS**, a modernized state forest nursery and additional private nurseries could play a critical role in mitigating climate change and increasing other benefits forests provide; and
5. **AND WHEREAS**, per Minnesota Statutes 89A Subd2, it is the role of the Minnesota Forest Resources Council to recommend policies and practices that: foster the productivity of the state's forests to provide a diversity of sustainable benefits at site levels and landscape levels; enhance the ability of the state's forest resources to provide future benefits and services; and foster no net loss of forest land in Minnesota;
6. **BE IT THEREFORE RESOLVED**, the Minnesota Forest Resources Council recommends enhancing nursery capacity in both State run and privately owned forest nurseries by:
 - a. Upgrading State Forest Nursery facilities by 2027, to produce both containerized and bare-root seedlings, using modern technology to track seed-source locations, while minimizing risks to seeds that are stored on site.
 - b. Increasing State Forest nursery production from current capacity of 4 million trees per year to 10 million trees per year by 2027, to double SFN capacity again by 2032, and to continue to increase SFN production capacity as necessary to plant up to 1 million acres of new forest by 2050.
 - c. Providing long-term contracts and other incentives to support the expansion of private nursery operations in

furtherance of reforestation goals.

7. **BE IT FURTHER RESOLVED**, the Minnesota Forest Resources Council recommends enhancing tree seedling capacity, production, and delivery by:
- a. Promoting collaborative efforts to reforest 1-million acres of appropriate non-forested lands by 2050.
 - b. Incentivizing private land tree planting through cost-share programs, partnerships, and projects to fully utilize planned increases in nursery stock.
 - c. Increasing funding for state forest nursery staff and contracted seed collectors to ensure adequate labor for the entire process from collecting seed to preparing seedlings for distribution.
 - d. Utilizing tree seed orchards, localized tree storage/distribution centers, and other nursery supply diversification strategies.
 - e. Re-evaluating the current “enterprise” model for the State Nursery that depends upon annual seedling sales to cover operational costs.
 - f. Removing legislative prohibitions on state forest nursery production capacity and seedling sales.
 - g. Implementing quality assurance strategies to improve seedling survival, tree genetics, disease resistance, and species suitability for changing climate.

Motion adopting **“Contributing to Minnesota’s Climate Change Goals by Increasing Minnesota Nursery Capacity”** (MFRC Resolution 2022-2) as a 2022 priority policy recommendation of the Minnesota Forest Resources Council; and directing the MFRC Chair to submit the resolution to The Honorable Governor Timothy Walz, and to the Chairs and Ranking Minority Members of the appropriate House and Senate Committees of the Minnesota State Legislature.

AYES (11) Craig Engwall, Janet Erdman, Kathleen Preece, Katie Fernholz, Kim Berns-Melhus, Kory Cease, Mike Kilgore, Pete Aube, Rick Horton, Keith Karnes, Jim Manolis

NAYS None

ABSTAIN (1) Forrest Boe

ABSENT (4) Bob Owens, Connie Cummins, Deb Theisen, Scott Pittack



Attested to by:
Pete Aube, Chair, Minnesota Forest Resources Council

01/18/2022
Date