

Tree Seedling Distribution Program – G. White State Forest Nursery¹

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Until the fall of 1992 all seedling orders were entered on a personal computer located at the nursery, but processed on the mainframe computer in the Department Headquarters in Jefferson City. It was felt that the operation could be handled more efficiently with fewer errors if it could be done entirely at the nursery. So between 1991 and 1992 shipping seasons, hardware was purchased and software developed that would allow this to happen.

Order forms are released to the general public in November and begin arriving back to the nursery at a rate of several hundred per day. The orders are stamped in numerical order as we receive them. Other than State land orders, seedling requests are filled on a first come, first serve basis. (figure 1)

When we enter orders, the zip code is the first item entered. The system will automatically bring

up the town, county and area code. The name and address is then entered. This information is used at least three more times before we are finished with this order. After the name and address the shipping month is entered. The final item to be entered is the species and quantities requested. The amounts ordered are compared to an up to the minute inventory which determines instantly what amounts are available. With this system an experienced data entry operator can enter around 600 orders per day. Thirteen to fifteen thousand orders are processed annually by the George O. White State Nursery.

After all of the daily information has been entered, it is processed in what we call a daily run. This is run after hours on an IBM AS/400 Mini-Computer. During this run, Acknowledgment (Billing) cards are issued along with an assortment of reports. Later in the season, shipping labels and tree cards are also issued.

The Acknowledgment (Billing) card is a two part card. The top portion contains a bar code, amount due, name and address and order number. The bottom

Abstract – In 1981, seedling orders were entered here at the nursery on one Personal Computer and the data transmitted to Jefferson City for processing. The same system was used until October 1992. Because of the large number of seedling orders handled and the time lapse involved with tracking inventory and financial transactions when information is processed in two different locations, a project was under taken to allow for all aspects of the seedling ordering system to be conducted at the nursery. The backbone of this system is an IBM AS/400 computer with a high speed printer capable of printer bar codes. The new system allows us to process over 13,000 orders annually. This is a brief description of the system capabilities.

portion contains all the species information for the customer. The top part of the card is returned to us with payment. (figure 2)

If orders are not paid within 30 days of the entry date, the order is canceled automatically and the stock is put back into inventory.

When payment is returned, the bar code is scanned and the payment screen for that order comes up on the terminal. The bar code is scanned by using a SYMBOL model laser scanner. If the payment matches the amount on the screen, the payment is applied with one key. If the payment does not match the amount due, the amount due is changed and payment applied with one key stroke. Usually the customer will note why his payment submitted is different than originally due and an order change will be made to reflect this also. The utilization of a bar codes eliminates errors in entering order numbers. The money we receive is deposited daily in the local bank. During the daily run, a listing of each applied payment is printed. This is used as a reference, and as an audit trail.

Seedlings are shipped from February until May. During a

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daily run, tree cards (figure 3) and shipping tags (figure 4) are issued. They are issued if they meet certain conditions.

1. No money is due on the order.
2. The seedlings requested must be out of the field and graded.
3. The order is within the geographic zone scheduled for any given shipping date.

A maximum of 2000 bundles are allowed for any given shipping date. The shipping tag also utilizes a bar code. This bar code consists of a bundle number and the first three digits of the destination zip code. This is used for a computerized United Parcel Service manifest.

We do not issue shipping tags unless the seedlings ordered are out of the field and graded. Every day the grading supervisor enters the numbers and species graded that day. This gives us a beginning physical inventory, when shipping tags are issued, the computer subtracts that amount from the physical inventory. Unless this total shows a sufficient balance, no shipping tags are issued for that species. This should give us a total of what is actually in the cooler at any given time.

We do some type of order change to approximately 20 to 25% of our orders. A large number of these requests come via the telephone. Between November 1992 and May 1993, we received approximately 4200 phone calls at the nursery. In addition to that we have an 800 number for people to call and listen to a recording to

receive information about what species are available and shipping information. More than 3800 people utilized that service, eliminating the manual handling of those phone calls.

Another feature that is unique to our system is the method of allocating previously sold out seedlings. We control the initiation of this process. If we see that we are going to have an overrun of seedlings, we select an option that searches through all orders that requested that species, but were not allocated them initially. The program creates billing cards for those orders. The card gives a due date and an amount due. No further transactions are done to the order until payment is received. (figure 5)

This system allows the initial processing plus all shipping and financial documentation of 13,000 to 15,000 seedling orders to be handled by one computer operator, one data entry operator and one temporary (1 to 2 months) clerical employee. The system was designed and written by Missouri Department of Conservation personnel.

ORDER FORM

DO NOT SEND MONEY WITH YOUR ORDER, YOU WILL BE BILLED THE CORRECT AMOUNT

CAT NO.	QTY	SPECIES	COST
422	25	Hazelnut	
211	25	White Pine	
443	25	Mulberry	
426	50	Aromatic Sumac	

DATE: 7-13-93
NAME: Daniel Ray
ADDRESS: Rt 2 Box 128
CITY & STATE: Hillsboro, MO
PHONE: () _____ ZIP 63054

If shipping address is different from above enter below (U.P.S. must have a street address).
NAME: _____
ADDRESS: _____
CITY & STATE: _____
PHONE: () _____ ZIP _____

DELIVERY OF ORDER
(Select one method only)
1. SHIP my order from the nursery during _____
(Enter February, March, April or May)
2. I will PICK UP my order at the NURSERY during _____
(Enter February, March, April or May)

My trees will be planted in _____ COUNTY

OFFICE USE ONLY		Applc 94
User <u>A</u> <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>H</u>		Y/N
Type <u>I</u> <u>J</u> <u>K</u> <u>L</u> <u>M</u> <u>N</u> <u>O</u> <u>P</u>		
Order Type 1 ___ Normal 2 ___ Free		
3 ___ Contract		MAIL
4 ___ Normal, Ship N/PD		Y/N
5 ___ Contract, Ship N/PD		
COUPON NO.	TAX	
	0 ___ NML	
	1 ___ EXT1	
	2 ___ EXT2	
	3 ___ EXT3	
	4 ___ EXT4	

Check here if you want us to substitute for sold out items -->

ORDER TOTAL

4.725% Sales Tax
If this is a tax exempt order, attach tax exemption certificate

Handling Charge

TOTAL DUE

ATTACH ANY COUPONS HERE

*Certain conservation planting may qualify for a discount on the cost of seedlings ordered. See your local Conservation Department representative for details.

Figure 1

DO NOT SEND MONEY WITH YOUR ORDER. YOU WILL BE BILLED THE CORRECT AMOUNT.

TREES
MO DEPARTMENT OF CONSERVATION
P O BOX 119
LICKING MO 65542



RAY DANIEL
RT 2 BOX 128
HILLSBORO MO

63050

Order No. 13201

Amount Due 22.64

Due Date 08/12/93

RETURN THIS CARD WITH CHECK

Refer to order number 13201 in all communications.

7/13/93
CARD 1 OF 1

**INITIAL INVOICE
FOR SHIPMENT**

Species	Qty Ordered	Qty Available	Qty Not Available	Total Price
WHITE PINE	25	25	0	2.75
HAZELNUT	25	25	0	4.00
AROMAT SUM	50	50	0	8.00
RED MULBER	25	25	0	4.00

Total Sales: 18.75
Sales Tax: .89
Handling Charge: 3.00

Your payment due date is 08/12/93

RETAIN THIS CARD FOR YOUR RECORDS

Total Due: 22.64

TREES
P. D. BOX 119
LICKING, MO 65542

FIRST-CLASS MAIL
U.S. POSTAGE
PAID
LICKING, MO.
PERMIT NO. 999

Order Number: 217

Dear Tree Planter:

Your seedling order is scheduled to be shipped from the GEORGE O. WHITE STATE NURSERY in approximately 10 days. If you have not received the plants in 15 working days, please contact the nursery promptly at 314-674-3229.

BYE LISA
3833 ROCKCREEK TERRACE
HIGH RIDGE MO 63049

Figure 3

STATE OF MISSOURI
DEPARTMENT OF AGRICULTURE
Plant Industries Division
Jefferson City
OFFICE OF THE STATE ENTOMOLOGIST
NURSERY INSPECTION CERTIFICATE
Number 348



GEORGE O. WHITE STATE FORESTRY NURSERY
MISSOURI DEPARTMENT OF CONSERVATION
LICKING, MISSOURI 65542

FIGURE 4

This is to certify that, in accordance with the Missouri Plant Law, the nursery and premises belonging to George O. White State Forest Nursery, Licking, Missouri, have been duly inspected on an annual basis by an authorized inspector and were found to be apparently free of injurious insect pests and plant diseases. This certificate is subject to revocation and other penalties under the provisions of the laws relating thereto.

STATE ENTOMOLOGIST

NOTICE: Missouri plant law, section 263.070, paragraph 5, specifies that anyone selling or offering for sale or distributing nursery stock in any other manner must annually obtain nursery dealers registration inspection certificate. This does not include nursery stock purchased for your own use. For more information contact the office of the State Entomologist, P.O. Box 630, Jefferson City, MO 65102, telephone: 314/751-2462.

<p>QTY. 25</p>	<p>SPECIES WHITE PINE (3-0)</p>
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PLEASE NOTE

If you are unable to plant your seedlings as soon as you receive them, keep them stored in a cool, dark place and keep the roots moist. Avoid storage in warm, moist, dark places or in direct sunlight.

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STRUB LYNN E
HCR 9 BOX 30
BUCYRUS MO 65444

TREES
MO DEPARTMENT OF CONSERVATION
P O BOX 119
LICKING MO 65542



The seedlings listed below which were not available at the time your order was received, are now available. If you are now interested in obtaining these seedlings, please pay the amount indicated by the due date shown.

Specie 306
Order No. 13201
Amount Due 16.75

Due Date 08/30/93

RETURN THIS CARD WITH PAYMENT

RAY DANIEL
RT 2 BOX 128
HILLSBORO MO

63050

Refer to order number 13201 in all communications.

7/15/93

SEEDLINGS NOW AVAILABLE

Species	Qty Available	Total Price
BUR OAK	100	16.00

Total Sales: 16.00
Sales Tax: .75

Your due date is 08/30/93

RETAIN THIS CARD FOR YOUR RECORDS

Total Due: 16.75