

# Microcomputer Order Processing and Inventory Control

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The University of Idaho Forest Research Nursery uses an off-the-shelf database package (REFLEX, Borland Inc.) for processing seedling orders. The Research Nursery grows about 650,000 seedlings annually, comprised of about 48 species or stock types, with 15 shipping dates. Our program has been customized for use by several nurseries faced with similar order processing concerns. We accept orders from landowners for reforestation and/or conservation seedlings on a first-ordered- with-payment first-filled basis. Seedlings are held in cold storage until appropriate planting windows are opened across the state. It is imperative to have a flexible, but accurate, system to track the numbers of seedlings available for sale as orders are processed. Quick access to customer records is also important as customers frequently call to make changes to, or inquire about, order status.

## ORDER PROCESSING REQUIREMENTS

- 1) Record customer data, species and quantities requested, and sales accounting data for numerous clients.
- 2) Quick access to customer record to enable changes in order.
- 3) Generate a report showing an up-to-date listing of seedlings sold and of seedlings still available for sale for each species and stock type.
- 4) Generate a deposit slip (accounting data) for a batch of processed orders.
- 5) Generate a customer receipt showing species and quantities reserved to fill the order and sales amount received or amount due.

6) Generate a report of all orders for a particular shipping or pickup date.

7) Generate reports of seedlings ordered by species, location (county(s) or state), or other database criteria as desired.

## ORDER PROCESSING

Customers receive a combination catalog/order form by request from the Research Nursery or from local county agents or state agencies. Nursery personnel scan returned orders for completeness, then enter data into the database assigning order numbers and deposit numbers and making any substitutions or refunds as necessary. The database record format is shown as Figure 1. This program calculates certain accounting data and total seedling and stock type sums for management purposes.

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FOREST RESEARCH NURSERY PUBLIC SALE DATABASE FOR FY94

Order Number: 1	Date: 9/23/93	
Name: Test Record 1	Address1: 100 N. Idaho	Address2:
City: North	State: ID	Zip Code: 88888
County: ID	Telephone: 885-8888	No. Customers: 1

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Taxable sales: \$49.00	Tax Paid: \$2.45	
Exempt Sales:	Exempt S&H: \$8.50	Total Exempt: \$8.50
Expected Amount: \$59.95	Amount Paid: \$59.95	Amount Due: \$0.00
Net Deposit: \$57.50	Deposit Number: 1	Pickup Code:
1st Del. Date: 4/11/94	2nd Del. Date:	3rd Del. Date:

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Total Seedlings: 140	RL Conifer: 40	SS Hdw: 0
Total Packages: 0	SS Conifer: 0	S6 Hdw: 100
		Misc: 0

RL CONIFERS -----

RL White pine:	RL Ponderosa pine: 20	RL Lodgepole pine:
RL Douglas fir:	RL Western larch:	RL Western redcedar:
RL Grand fir:	RL Blue spruce:	RL Norway spruce: 20

SUPERSTOCK CONIFERS -----

SS Ponderosa:	SS Scotch:	SS Austrian:
SS Blue:	SS Norway:	SS Larch:
SS Grand fir:		

SUPERSTOCK HARDWOODS -----

Honeylocust:	Black locust:	Russian olive:
Rugosa rose:	Siberian pea:	River birch:
Honeysuckle:	Wild apple:	Nanking cherry:
Chokecherry:	Bur oak:	Sawtooth oak:
Blue oak:	Syringa:	Purple lilac:
White lilac:	Sagebrush:	Sand cherry:
Hybrid poplar:	Arctic willow:	Golden willow:

S6 HARDWOODS & PACKAGES -----

S6 Hybrid poplar: 100	S6 Arctic willow:	S6 Golden willow:
S6 Sumac:	IDAHO PACKAGE:	WILDLIFE PACKAGE:

MISCELLANEOUS SPECIALS -----

English oak:	Mt. hemlock:	White ash:
Austrian pine:	Norway maple:	Misc. species:
American plum:	Rocky Mt. juniper:	

**Figure 1. Database record format.**

INVENTORY	INITIAL	SOLD	AVAILABLE	
<b>CONIFERS:</b>				
Western white pine	26500	26480	20	INITIAL
Ponderosa pine	86000	85960	40	INVEN: 244029
Lodgepole pine	540	540	0	
Douglas-fir	17600	13940	3660	RL C = 191920
Western larch	17720	17700	20	SS C = 18175
Western redcedar	3440	3420	20	S6 H = 8720
Grand fir	3760	3700	60	SS H = 22540
Blue spruce	29520	10860	18660	Misc = 2674
Norway spruce	6840	5480	1360	
Rocky Mt. juniper . . . . . Wildlife Package . . .				
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<b>SUPERSTOCK CONIFERS &amp; HARDWOODS:</b>				
Ponderosa	2945	2945	0	SEEDLINGS
Scotch	3355	2940	415	SOLD: 209703
Austrian	2635	2635	0	RL C = 168080
Blue spruce	3415	3415	0	SS C = 16545
Norway spruce	1560	1560	0	S6 H = 7660
Western arch	3025	1810	1215	SS H = 16580
Grand fir	1240	1240	0	Misc = 838
Honeylocust	1525	840	685	
Black locust	1850	525	1325	
Russian-olive	840	760	80	
Autumn-olive . . . . . Wildlife Package . . .				PACKAGES
Rugosa rose	1355	1355	0	SOLD: 52
Siberian pea	1345	1345	0	Wildlife = 43
River birch	1350	830	520	Idaho = 9
Honeysuckle	975	975	0	
Common wild apple	1270	540	730	
Nanking cherry	1710	970	740	
Chokecherry	500	500	0	
Bur oak	1515	1340	175	CUSTOMERS: 621
Sawtooth oak	180	180	0	Catalog = 621
Blue oak	170	170	0	Arbor Day=
Western syringa	1805	1200	605	Clearance=
Purple lilac	1430	1430	0	
White lilac	785	780	5	
Sagebrush	600	600	0	
Sand cherry	160	160	0	
Hybrid poplar	860	860	0	LAST ORDER: 615
Artic blue willow	890	540	350	
Golden willow	1425	680	745	
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<b>HARDWOODS:</b>				
Hybrid poplar	2860	2840	20	
Arctic willow	2140	2140	0	
Golden willow	2520	1480	1040	
Skunkbush sumac	1200	1200	0	
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<b>JUST-A-FEW SPECIALS:</b>				
English oak - SS	16	15	1	
Mt. hemlock - SS	85	85	0	
White ash - SS	20	20	0	
Austrian pine - PC5	380	200	180	
Norway maple - SS	25	15	10	
American plum	1765	120	1645	
Rocky Mt. juniper	180	180	0	
Misc. species	203	203	0	
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Taxable Sales: \$				
Tax Paid: \$			Exempt Sales: \$	
EXEMPT TOTAL: \$			Shipping/Handling: \$	
TOTAL AMOUNT PAID: \$				
NET DEPOSIT: \$			TOTAL AMOUNT DUE: \$	

Figure 2. Seedling inventory.

After a batch of orders is processed, a new inventory report (Figure 2) is printed. This report will immediately indicate if seedlings have been oversold or if inventories are low. Appropriate adjustments are then made as necessary. At this time a deposit slip is also generated (Figure 3) showing appropriate financial totals for that batch of orders. The database is then filtered to print customer receipts (Figure 4) or other data as necessary. As shipping or pickup dates approach, the database is queried to determine numbers of customers and quantities of seedlings so that shipping boxes may be prepared in advance. A copy of the receipt is used to fill orders from seedling cold storage just prior to shipment.

This database has proven easy to use by staff personnel without intensive microcomputer training. Additions or deletions are easy to make as the list of species or stock types change annually. The database can be queried to extract other data for management purposes such as distribution of sales, use of seedlings purchased, or preference of species or stock type for a particular planting purpose or location.

PUBLIC SALES DEPOSIT	
Forest Research Nursery	
Budget 688-Y011	
April 13, 1994	
Deposit # 21	
Taxable	\$3,989.23
Tax Paid	\$199.50
Exempt	\$1,353.04
Amount Recd	\$5,541.77
Net Deposit	\$5,342.27
Last order processed: 615	

**Figure 3. Public sales deposit.**

UNIVERSITY OF IDAHO - FOREST RESEARCH NURSERY

Order Number: 1

Pickup Code:

Test Record 1

Delivery Date 1: 4/11/94

100 N. Idaho

Delivery Date 2:

North ID

88888

Delivery Date 3:

Thank you for purchasing seedlings from the University of Idaho Research Nursery. The nursery is dependent upon seedling to fund research in sales to meet operating expenses and nursery management and forest regeneration. We appreciate your concern and efforts toward the protection of our natural resources.

If you are in Moscow, stop by the Nursery. We are open from 7:30 am to 4:00 pm Monday through Friday, and visitors are always welcome and appreciated. We're locate 2 miles east of Moscow on the Troy Highway (Idaho 8) at the University of Idaho Plant Science Farm.

CONIFERS:

Western white pine  
 Ponderosa pine 20  
 Lodgepolepine  
 Douglas-fir  
 Western larch  
 Western redcedar  
 Grand fir  
 Blue spruce  
 Norway spruce 20  
 Rocky Mt. juniper

SUPERSTOCK CONIFERS:

SS Ponderosa pine  
 SS Scotch pine  
 SS Austrian pine  
 SS Blue spruce  
 SS Norway spruce  
 SS Western arch  
 SS Grand fir

HARDWOODS:

Hybrid poplar 100  
 Arctic willow  
 Golden willow  
 Skunkbush sumac

SUPERSTOCK HARDWOODS:

Honeylocust  
 Black locust  
 Russian-olive  
 Autumn-olive  
 Rugosa rose  
 Siberian pea  
 River birch  
 Honeysuckle  
 Common wild apple  
 Nanking cherry  
 Chokecherry  
 American plum  
 Bur oak  
 Sawtooth oak  
 Blue oak  
 Western syringa  
 Purple lilac  
 White lilac  
 Sagebrush  
 Sand cherry  
 Hybrid poplar  
 Arctic willow  
 Golden willow

JUST-A-FEW SPECIALS:

English oak  
 Mt. hemlock  
 White ash  
 Austrian pine  
 Norway maple  
 Misc. species

SPECIAL PACKAGES:

Idaho package:  
 Wildlife package:

TOTAL AMOUNT RECEIVED: \$59.95

TOTAL AMOUNT DUE: \$0.00

Figure 4. Sales receipt.