DMPCORN:
A LOTUS TEMPLATE FOR CORN DETASSELING CONTRACTORS

An Honors Project (HONRS 499)

by

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Purpose of this Project

As an accounting major, using computer spreadsheet software is a requirement. LOTUS has recently released a new version of their popular spreadsheet 1-2-3. This version, 1-2-3 Release 4.01 for Windows, is an advanced version for Windows. Therefore, I wanted to create a project that would enable me to learn this new version.

During the summers, I have been employed as a supervisor for a corn detasseling contractor. He has no computerized software that helps him keep any records or produce a payroll report. So I decided to take a practical problem, such as his need for software, and develop a solution using the new version of LOTUS.

Acknowledgements

Thanks to Dr. Hanks for taking the extra time to advise me and grade my project. I would also like to thank Dr. Jim Schmutte. When I encountered a major problem with this project involving my own personal computer, he volunteered to allow me to use the new computer in his office. Without his help, I would have not been able to complete this project.
Introduction

Every summer, farmers plant millions of acres of corn across the country. Some produce high quality varieties while others plant very low quality varieties. Seed corn comes from corn produced the previous summer. Unfortunately, the seeds for the high quality varieties are not produced from a natural corn plant. Rather they are a hybrid of two varieties.

The way seed companies produce this hybrid seed is to plant two different types of corn plants next to each other. In a field planted with hybrid corn, corn is planted in five row segments. The first row is called the "male" row as it contains the variety of corn that will produce the pollen. The next four rows are planted with a second variety of corn known as "females". The pollen from the males will pollinate the females silks.

In order for the cross-pollination to be pure, the pollen producing tassels of the "female" plants must be removed before it can self-pollinate. After the cross-pollination has occurred, the "male" plants are removed so that only the females will produce corn. This corn will be a new hybrid variety.

Nature takes care of most of this process. However, man needs to help remove the female tassels before they produce any pollen. Thousands of workers enter the corn fields every summer to do just that. They pull a tassel from each and every female plant with their hands. Since this is a large, labor intensive process, the farmers and seed companies contract the work to local contractors.
Contractors are responsible for the removal of all tassels in the fields that they are hired to clear. In turn, they hire employees to perform the work. An average field in the Tipton, Indiana area is around 40 acres of "female" plants. It takes about six hours for one person to clear one half of an acre. So it takes 80 people around six hours to remove all the tassels in a 40 acre field.

The contractors are paid a flat rate per acre plus or minus a few possible adjustments. The wages for their employees are paid by the seed company out of the contractors proceeds. Any proceeds left after paying all the employees at the end of the summer are paid to the contractor as his profit.

Assume for example that in the 40 acre field mentioned above, the acre rate is $117 per acre with no adjustments. That means the contractor would have $4,680 placed in his account. After paying 80 employees for six hours at minimum wage, the seed company would deduct $2,040. Thus his profit is $2640 for the first pull. The contractor will always have to go through the field a second time or more to check for tassels that were missed the first time. Obviously, it will take less time to perform the check compared to the initial pull. Therefore, he pays 20 employees for six hours at minimum wage. An additional $510 is deducted from his account. This reduces his total profit to $2,130. This amount would be also be used to cover any overhead costs the contractor incurs.

One contractor claims to make an average of $35 per acre profit. That particular contractor usually has around 300 acres a
year; therefore, his total profit is around $10,500. While the amount may be more or less, it is still a large dollar amount. Some contractors do not even make a profit for the year. These numbers also mean that he has over $35,000 flowing through his account during the course of the year.

Because of the large dollar amounts involved and the thin profit margins, it is very important that a contractor keep records of where his money is going. Having this information should help him increase his profits. He needs to know which parts of the process his crews are accomplishing efficiently and which parts they are not. If he had good records, he could also plan better for future operations.

It is with all this in mind that I decided to develop a computer program to perform all these recording keeping and information gathering tasks. My objective was to design a template using LOTUS 1-2-3 Release 4.01 for Windows that would allow contractors to keep track of their costs and generate analytical reports for him.
The Project

Beginning

After I finalized my idea for my project, I purchased a manual on using the new version of LOTUS. I spent several hours reading through the first five chapters and taking notes. After two weeks of this strategy, I evaluated my progress and realized that I was not really getting anything accomplished.

My next strategy was to put onto paper what I wanted the worksheets to look like. I needed the name, pay rate and bonus rate for each employee. That part was easy to plan. Next, I needed to figure out how to input the hours every day. Since a person could work part of the day in one corn field and the rest of the day in the other, I decided to make separate columns for each part of the day as well. Since the contractor has a possibility of working twenty days, that meant I needed forty columns for daily hours to be inputed.

The Problems Start

The first problem I encountered was computing the accrued bonus wages. The contractor I work for has a policy for awarding a bonus for each employee after they work a total of thirty hours in a season. By that time, he assumes they are working at a more efficient level. They also have shown that they do not mind the hard work involved. Therefore, for every hour they work after the first thirty, employees receive a small bonus rate per hour which is paid at the end of the season. For example, if a person works
fifty hours for the entire season and his bonus rate was fifteen cents an hour, he would have a bonus of three dollars added to his last paycheck.

The difficult part involving the bonus is a matching problem from the accounting standpoint. Proper accounting theory requires the costs, such as a bonus based on hours, be reported at the time they were incurred. If a person is working in a field after he has compiled over thirty hours, then he is technically working for an increased pay rate; therefore, the contractor should compute his payroll expense for that field at the bonus rate instead of the basic rate.

This meant that the program needed to keep a running total of a person’s hours for the season. Since the thirty hour mark usually does not occur at the end of one day, a person could work part of the day at one rate and the rest of the day at another rate. So I had to design a complicated formula in the template to properly compute the wages earned. This took a few hours of experimenting with LOTUS until I finally perfected the statement. The final outcome of my experimenting was the following nested if-then statement:

@if(e5>30,f5*$c305,@if(g5<30,f5*$b5,g5*$b4-30*$b4+f5*$b5))

This formula required a running total after each column containing the hours worked for a particular day. Since this running total is only useful for the above formula, I made the columns "disappear" from the worksheet. That means they are still there, but do not appear while the worksheet is being used.
Memory Problems

The next step was to copy this formula into the computation section of the worksheet. Every corresponding cell for every person for all fifty possible columns of hours needed this formula. That meant a total of 12,500 formulas since I designed the template for 250 people working 25 days with two inputs per day. I typed in the copy command on my home computer and waited. After five minutes, my computer beeped at me. Then a large box appeared on the screen that said in large letters, "WARNING!!-OUT OF MEMORY ERROR!!" I clicked the okay box wondering what happened. The warning cleared and the option menu told me to abort copying. So I did and waited. I heard the computer working away as I waited and waited. The clock on LOTUS did not change for twenty minutes as I kept hearing the sounds and waited. Finally, I turned the computer off realizing I might have really over worked it.

The next day at school, I was asking Dr. Hanks about this problem in the accounting office. He said I would probably have to find another way to compute the numbers. He also mentioned that this is an example of an unforeseen problem that causes projects to take longer than planned. If anything, he taught me to never wait to the last minute or last semester to start something. Fortunately for me, Dr. Schmutte was in the accounting office and overheard my problem as well. He told me that the department just installed a new computer in his office that had four times the memory of mine as well as a faster processor. He helped me set up the new computer to run the new version of LOTUS.
When I tried his computer, it flew through the statements in a fraction of the time my computer did. It also had no problem with copying the command 12,500 times. However, this made the template too large to fit onto a floppy disk. That meant I had no way of transferring the template to any other computer, which rendered my program useless.

Some major decisions now had to be made. I decided to input only one set of hours for each day instead of the possible two. That eliminated half of the computation statements right away. It was still a fairly large template which required a lot of memory. Then an idea came to me. I made the template self sufficient in memory allocation. I designed the program to start with only 100 employees for 25 days. That meant only 2,500 formulas. Then, as the contractor sees the need, the program has macros (pre-programmed series of key strokes) designed to increase or decrease the number of employees. That way, the program only has formulas for the number of employees actually working. The memory requirements can be controlled this way.

Assigning Costs to Fields

That took care of two major problems at once. The next problems was allocating the wages to the correct fields. The first part of this involved dividing a single day's wages between two fields. When the contractor tells the computer what he did during the day, he inputs the field number(s), the number of regular employees that worked in each field and how long the group worked.
By multiplying the number of employees and the hours worked for each field, a weighted average for each field is determined. Then the total wages for the day are divided into two parts according to the weighted average of the two fields.

After that is done, a macro sends the totals to the appropriate worksheet for each field. I have allowed for up to twenty corn fields for one season. This means that I created an additional twenty worksheets for each field. That is one of the new features of this version of LOTUS. You can have multiple worksheets that interact with each other in one program. By clicking the mouse, the contractor can view the information for any one field at a time.

The individual field worksheets provide a detailed analysis of the worked performed. They divide the days worked and related information into the various stages of work. There is the first pull of a field, which is when all the employees try to remove as many tassels as possible. Usually, we try to remove at least 97% of them during this initial pull. Then, we come back to that field a few days later and try to remove all that are left. Unfortunately, we sometimes have to come back a third time. The program divides the data into these three different categories. It then computes what percentage of the proceeds went to the wages of each category which helps in budgeting and in problem identification.
Making the Template User-Friendly

The next phase of the project was to add convenience features to the program. Since employee turnover is high due to the working conditions, the payroll list can accumulate several people who only work one day. When it is time to enter the hours for each employee, there are several names in the middle of the list that will never have any more entries. So I created a macro that will sort the payroll list in order of total hours worked. The person who has worked the most hours in the entire season to date will be at the top. The people who only work once or twice will be at the bottom.

Printing Reports

In order for the program to be useful to the contractor it must generate and print the weekly reports that he is required to turn in to the seed company. Since he only needs a week of data for each report and the file contains a season of data, I needed to find a way to print multiple columns. The first column is the list of names, so it will be printed every time. The next columns are the daily hours. When week two comes around, week one hours should not be printed out even though they still need to be on the worksheet. Again, several experiments were required to find a way to do this.

The solution was "hiding" the columns that contained hours that were not needed for a particular report. This involved a three macro process. The first defines what columns to hide, the
second hides the columns, and the third "unhides" those columns after printing. Unfortunately, this solution created another problem for me. For some reason, the process would reveal the hidden columns that contained the total hours between every column. I still wanted these hidden. After a few hours of studying and trying different things, I solved the problem by rewriting one of the macros.

I then created several predefined print ranges to print reports of each field and a total season report. This made the printing process a lot easier for the user. This also completed the construction of the template.

Protecting the Template

I worked approximately 90 hours on designing all the features for this template. Because of this investment of time I thought it would be a disaster if someone accidentally erased one of my formulas or commands. I needed a way of protecting the worksheets so I found a command that seals all the cells in the worksheets. That means a person can look at them but cannot change anything in them. I had to define certain ranges that the user could change, such as the two input areas for field information and payroll. There is a feature that performs this as well.

Another problem came to my attention. None of my macros would work now that I sealed the worksheets. After further research, I discovered that I needed to modify all of the macros. I included a statement at the beginning of every macro that would temporarily
unlock the worksheets and after the macro finished its task, would lock the worksheet again.

**Completing the Project**

In order to test all the features of the template, I acquired actual data from last summer’s season and I entered it into my program. The reports that were produced corresponded very closely to the results that we computed by hand last summer.

The last thing I had to do was to write a user manual for the program. I wrote it in simple language so any person with minimum computer knowledge could use my program. A copy is enclosed as an appendix to this report.
How I Benefitted from the Project

The most valuable lesson I learned from this process is that no matter how you plan something, it always takes longer than you thought. Dr. Hanks told me that when I initially asked him to be my advisor and he told me that weekly until I was finally done. Every time I solved one problem, two more appeared. I wish I had worked hard on this in August instead of waiting until January.

I learned a great deal about LOTUS 1-2-3 for Windows. There are so many nice features added or changed to make program creation easier. Of course with increased technology comes more complex problems. It also requires more in depth studying. The interactive worksheets is something I utilized very much in my program. I have 22 worksheets working together at one time. This complexity made the process a lot easier, but it also created some unique problems. Ironically, I learned the most from these problems.

I experienced a taste of what I will face next year as I start my career with an accounting firm. I was given a large task that involved creating a template to make the job easier. I had to allocate my time to this project as well as my other subjects and family obligations. I took a real problem and found a workable solution to it. This is a practical project as well as educational. I know I will take what I learned in the entire process and use in my career. I also know that the contractor I work for will use this program every summer from now on.
Works Cited List

Kriebel, James. Personal Interview. (Throughout entire project.)

Lotus Development Group, User’s Guide Lotus 1-2-3 Release 4 for

A REFERENCE MANUAL FOR

DMPCORN

A LOTUS TEMPLATE
DESIGNED FOR
CORN DETASSELING
CONTRACTORS

DESIGNED BY

DAVID M PORTER
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Introduction

The template DMPcorn is a template designed for contractors in the corn detasseling business. A contractor is paid a certain rate per acre with a few possible adjustments to have all the corn tassels removed from the plants before they produce pollen. To perform this task, the contractors hire several employees. With an average of one hundred employees earning over minimum wage and each working an average of fifty hours a season, the payroll is quite large. The contractor also hopes to make a large profit for himself. Several thousand dollars are involved throughout the entire process. This program was designed to help contractors manage costs and to provide information.

This program will allow the contractor to enter the daily payroll hours for each employee every day. Individual field data will also be inputted, such as acre rate, number of acres and other factors affecting the proceeds. After the input is completed, the program will produce payroll reports to turn in to Pioneer, an agricultural company, individual reports for each field and a total report for the season.

This program will help the contractor organize records, store them for future needs and analyze performance on a field-by-field basis as well as for the entire seasons. The information generated should help the contractor plan ahead more effectively and more efficiently evaluate crews performance.

Since there are large dollar amounts involved, the potential for high profits or losses is correspondingly large. It is
important, then, to see where the resources are being consumed. For example, when this program computes wages, it will compute an adjusted wage. That means if a person has earned enough hours to receive the bonus rate, it computes the bonus at that time. Of course the bonus is not paid until the end of the season. However, proper expense matching requires that the bonuses be allocated to the fields in which the person actually earned the bonus amounts. Since the contractor only turns in hours to Pioneer, this will not affect the official payroll.

System Requirements

This template was designed on LOTUS 1-2-3 release 4 for Windows. Therefore, the program will only work on that version. That version of LOTUS requires an IBM compatible computer that is at least a 386 with 4 megabytes of RAM. Also, Windows 3.0 or higher is required. Larger RAM is suggested as this is a fairly large template program. A printer is optional. However, any reports generated would be more useful if they were printed. A mouse usually accompanies Windows and is very useful. When this manual instructs the user to click something, it means to use the mouse to move the cursor to the box stated and press the mouse button.

Copying Program

The first thing you will want to do is to copy the program onto your hard drive if you have one. This can be done one of two ways. The first is to enter LOTUS. Then click FILE and then
select OPEN. Choose drive A. Finally select DMPCORN.WK4 and hit the OK box. Then you want to click FILE again and select SAVE AS. Next type the two digit year+corn.wk4. (If the year is 1994, type 94CORN.WK4). This way you have a different program name every year. You can save several years of records this way and not erase old data that you may want to review.

The second way to copy the program onto the hard drive uses DOS. Normally, the user would be in windows already. This method requires the user to exit Windows or get a DOS prompt. This way is actually faster as Dos can copy a program quicker than LOTUS can copy one. To start this method, get a Dos prompt. At the c: prompt type cd\lotus (you should check that this is the subdirectory that LOTUS 1-2-3 for Windows is located on your computer) and hit return. Next type cd\sample, then hit return. Type copy a:dmpcorn.wk4 then return. If the program disk is in drive b, change the statement accordingly. Next, type rename dmpcorn.wk4 94corn.wk4 and hit return. As above, use the number of the year.

**Loading the Program**

After entering LOTUS 1-2-3 for windows, you are ready to load the program. Click the FILE box and select OPEN. A box will appear with a list of program names in the middle. Select the current year’s program name. (94corn.wk4) If the box is full of names, you made need to click the up or down arrows next to the box to view more names. Once you see the name you want, move the
cursor to that name and click the mouse. Then click the OK box. If it takes a few minutes to load, do not worry. This is a large program and depending on your computer processor speed, it may take longer than most programs.

Preparing the Program

This program will initially process 100 employees. However, it can handle up to 250 employees depending on your needs. The more employees it processes, the more memory it requires, so it is flexible to save memory. You should decide if you want 100, 150, 200 or 250 employees. If you decide you need more than 100, there are macros designed to modify the program to handle more. A macro is a set of program commands already programmed into a worksheet. By activating a macro, the programs are executed without the user being required to do anything else. This template is a combination of twenty-three different worksheets working together. Each of these worksheets has a unique name that is listed in the "tabs" that appear across the middle of the screen right above the column letter names. Be sure that you are in the PAY worksheet. The status line at the top will indicate which worksheet you are in currently. This is accomplished by moving the mouse pointer to the tabs at the top of the worksheet. They look like this:

A PAY SUMMARY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Once you are pointing to the tab you want, click the mouse only once. Here is the steps for changing the number of employees.

1. Move the mouse to the top of the screen and click the option Tools.
2. Move the cursor down the list to Macros> and click.
3. The box Run will already be highlighted, so click the mouse again.
4. There will be a small box in the middle of screen with several range names. Use the mouse by pointing to the up or down arrows in the right side of the box until you see the name \makel00, \makel50, \make200, or \make250, depending on what size you want. Then move the pointer to that size and click the mouse. Click the OK box.

Now you are ready to begin using the program. Remember, at anytime during the season, you can change the number of entrees you want. **Be careful not to pick fewer names than you already have or need!!** This will result in calculations not being performed.

### Entering Names

Be sure that you are still in the PAY worksheet. If not, click the tab name for this. Whenever you enter a worksheet, you may want to always press the Home key on your keyboard as this bring the cursor to the upper-left corner of the worksheet. Notice that the cursor in this payroll worksheet only moves to the cell D5. That is because the rows above this containing the dates and totals, as well as the columns to the left containing names and pay rates, are frozen. This means that they will not leave the screen at anytime while you are entering data. Also, you cannot move the cursor into these areas and accidently erase something.

So, in order to enter names and wage rates, you need to execute a macro that allows you to move into this frozen area. You do this by pressing **Ctrl+M**. That means, you press the control key and then hold it down as you press the M. Now you can enter names in first the column, the starting pay rate in the next column and
the bonus rate in the third. If there is no bonus rate, enter 0.

Warning-you may want to have the cursor below the last line of data anytime you execute a macro. Sometimes the data in the cell is erased if you accidently strike the wrong key or hold it too long.

When you have finished entering the names and pay rates, move the cursor to a row below the date, or to a cell that is currently empty, and press Ctrl+D. This tells the program you are done entering names and it freezes the columns once again. Note-

Anytime you finish a function, you may want to press Ctrl+D as it acts as a reset button.

**Sorting the Names**

The program contains a macro designed to sort the payroll list in order of hours worked. That means the person who has worked the greatest number of hours will be at the top and so on. This was designed this way for two reasons. The main reason is that the people with the most hours will usually have hours every day and will work longer into the season. Therefore, a person who works one day and then quits will not be in the middle of the list with all the regulars. The second reason is that alphabetical order would have been impractical for the reason above as well as the time sheets are not in alphabetical order either. You may sort the names anytime you wish.

You sort the list by pressing Ctrl+H. You will probably do this either at the start or the end of each session during which you enter data.
Entering the Daily Hours

IN order to enter the hours worked each day, you will need to be in the payroll worksheet. The second line at the top has consecutive numbers from 1 to 25. These are the day numbers. Be sure that you are in the right column for day you are entering data. You may want to move the cursor all the way to the right until that particular day number you want is next to the columns frozen. Then move the cursor back to the column into which you are entering data into.

Now, you enter the number of hours that each person worked. The program is setup to handle decimals, not fractions. Therefore, use .25, .50, or .75 for the equivalent times. Since the Agricultural companies prefer this format on the reports you turn in, this is useful. Notice as you are entering numbers, the top numbers are changing. The third number is the total hours for that day. The fourth number is the total adjusted wages for the day. Refer to the introduction for explanation of adjusted rate.

Entering Day Information

This section deals with entering information pertaining to a particular day. Here you would enter items such as the fields you worked in, the pull number you were working on in each field and how you split the work that day between fields.

First you need to get into worksheet A. Remember, move the mouse to the tab A and click once. Move the cursor to column C and down to the day you are entering. This should be the first available row. First enter the date. You do this by typing the
month number/ day number. For example July 25 would be entered as 7/25. Next move the cursor to the right one place into the field column. Enter a field number 1 through 20. Notice this does not ask for the official Pioneer field number, but the order that you were assigned the fields.

The next column is for the number of workers. This number should include the number of people you had in the field either as pullers, checkers and machine drivers. Do not include supervisors or errand runners.

Column F is for the numbers of hours you were in the field. This number is probably the same as everyone's individual payroll amount. However, if the crews were in two fields in one day, you need to break the hours down for matching purposes. Do not include transportation or any other time that there were not people in the field except for breaks.

Column G ask for the pull number. This will be a 1, 2, or 3. That is either the first pull, first check, or any subsequent checks. If you go to a field a fourth time or more, use the number 3 still. This will hopeful not happen; but, sometimes it does and is usually a small affair. Therefore, I have set the program to include the costs with the category last pull as is the case with the third pull.

Columns H through K are the same as D through G. These are for a second field that you may have been in on this day. If you were only in one field, either enter 0 or leave blank.
**Entering Field Information**

For every field you are assigned, there are various inputs that affect your proceed rate. Therefore, there are several pieces of data you need to enter to arrive at that rate.

This input section is in worksheet A. Be sure you are in that worksheet. If not, click the tab A once. Now move to column N. There is a row for up to 20 fields. Those numbers (1 through 20) are the numbers the program uses to identify fields. Be sure these numbers are the ones you used when entering data into the individual day data in worksheet A.

Move to the appropriate field number and enter the Pioneer number in column N. This will help you identify the field. In column O, enter the number of **FEMALE** acres only. Since you only get paid for females, only enter females. Next, enter the basic rate per acre as quoted in the contract.

In the next column, enter a Y or N depending on whether or not you used machines to pull the field. Since Pioneer adjust your acre rate by $4 if you walk the fields, this input is essential.

Finally in column R, enter the machine puller’s percentage before you entered the field. Since the number can drastically change your proceeds, you want this number to be correct. Enter the number in the form of a decimal! (17.3% would be entered as .173) Again, make sure that you use the numbers 1 through 20 from now on when referring to a field in this program!
Summarizing the Data

The program will automatically add up all the wages for the day. It will also allocate the wages between the two fields worked that day. To view the summary, go to the SUMMARY worksheet by clicking the mouse on the summary tab. Once there, a breakdown for each day is shown with the day being split into two parts for the two fields worked in that day. If there was only one field that day, then the total wages will be on one line.

In order to keep tract of cost on a per field basis, the program has twenty more worksheets to keep each individual field's wages separate. To allocate the cost, press Ctrl+A. You will see the tabs blink one at a time as the program transfers the totals to the appropriate fields. Depending on your computer, this process could take anywhere from one minute to over ten minutes.

To view an individual field, move the mouse to the tab for the field number you want. Once there, click once. You may want to press Home. You will see in the upper left portion a listing of dates, pull numbers and wages. Now press Ctrl+F. This will provide a break down by pull number. This will only affect the field data in the worksheet that you are working. Therefore, you would press Ctrl+F in each individual field worksheet when you enter those worksheets.

Below the listing, there are three sections for first, second and last pulls. On the right of the worksheet, there is a field analysis. The first part of the analysis computes the adjusted rate per acre for the field using the inputs for that field such as
an increase in rate for walking the field and an increase or
decrease for machine pre-pull percentage.

The lower part of the analysis provides a cost and profitabiliy break down. It lists the wages for each of the three pulls. It then computes the percentage of the proceeds for each pull. This figures are also transferred to the summary worksheet for totaling the season by pull numbers.

A total summary is computed on the worksheet SUMMARY in cells C50 and below. This computes the total first pull for the season, the total second, total last and total profits. The profit is the proceeds left over after paying wages. This figure is what you have left to pay for any overhead items not reimbursed by Pioneer. After paying for these items, you can compute your profit.

Printing Payroll Reports

The most important printed report is the weekly payroll report that is turned in to Pioneer. Unfortunately, it is also the most difficult to produce. However, if you use the following instructions, it will not be too complicated.

Since the payroll file contains every day that you work, you will not want every day printed every week. For example, if you want to print a week that contains work days 5 through 8, you do not want work days 1 through 4 to appear. Therefore, it is necessary to "hide" these days temporarily to print the other days.

To perform this, press Ctrl+K. The screen will change and you will see the first columns in two places with a solid bar at the
top of the worksheet. Look inside that bar. On the left it will say Range Name: Hidden and on the right it will say Cells:B1. or something to that effect. You will also see a few cells that are highlighted in total black. You want to move the cursor so the black will cover a cell in each column for the days you do not wish to include in this report. Instead of using the cursor to indicate columns, you can also type B:B1..B:E1. This is what you would type to eliminate the first day's data from the printout.

You will also see several columns appear that have a single star in each cell. These cells are normally hidden, so you can ignore them. You can include them in the cells you want hidden. Also, it is not necessary to hide columns to the right of days you want to print.

Now that you have selected the range to hide, you need to press Ctrl+W. Again, be sure that you in a cell without information. The screen will seem to remove the columns that you selected to hide from the screen. Before you go on, move the cursor to the bottom right corner of the data that you wish to print. This should be the last worker's hours for the last day. Write down the cell address for that cell for later use.

There are several ways to print something in this version of LOTUS 1-2-3. The easiest is to press Ctrl+P. You can also use the mouse to select File, then select Print. Either way, you will see a box appear in the middle of the screen. It will have three choices with circles beside them. Move the mouse to the circle that says Print Selected Ranges and click until a dark circle
appears. Next move the mouse to the white box right below that circle and click the mouse once. There will probably be numbers and letters there already. Once you are there, type in the cells you want printed. You will type B:A1..B: (whatever the cell address is that you wrote down from above.) For example if the last person was in row 15 and the last day of the week was in column N, you would type B:A1..B:N15 and hit return. Now move the mouse to the OK box and click the mouse. Your printer will now print a report for you.

Once you are done, press Ctrl+D, then press Ctrl+Y, this will reset the worksheet and make the days you hid reappear.

**Printing Summary Reports**

You can also choose to print out the summary reports for each field as well as the total summary. This is a very simple process. To print, once again type Ctrl+P. The box mentioned before will appear. Select with the mouse Selected Ranges Only. Then move the mouse to the white box and click once. There are prearranged names for each summary. The total season summary is called TOTSEASON. So type that name in the white box and click OK to print the total season summary. Each field is named by the three letters TOT and the field number. If you wanted to print a report for field one, type TOT1 in the white box. All 20 fields are represented the same way.
Quitting the Program

Before you quit, you need to re-save the program with the new data that you entered. To do this, move the mouse to the FILE box at the top left and click twice. Then move the mouse down to the word Save and click. This will update your current year's file with the new data you have just entered. To exit the LOTUS program, again click the FILE box. Then move down to the bottom and click EXIT. This will return you to Windows. If you forget to save the updates first, LOTUS will ask you if you wish to save the program before exiting. Click the YES box.

Program Assumptions

This section will define the assumptions used to develop the formulas that derive the different numbers in the program. These assumptions were based on current policies and if policies are changed, some modifications will need to be made to the program. The policies assumed to be in effect when designing this program are described in the following paragraphs.

In computing the bonus, past policy has been that when an employee has worked thirty hours or more for the season, he will receive a bonus based on the number of hours worked over thirty. The bonus rate will be determined by the employer prior to the season. The bonus is paid after the entire season is over. For example, if a person worked 35 hours and his bonus rate was fifteen cents an hour, he would receive a bonus on his the last check for 75 cents.
As stated earlier, the bonus is computed in the program as if it were paid when the employee worked the required hours. This allocates the cost more accurately. However, the payroll report keeps the total bonus wages recorded in the last column of the worksheet. That way Pioneer will only receive the hours worked during the season and a lump bonus sum at the end of the season.

The next policy is dictated by Pioneer and it deals with the adjusted rate per acre. The first part of that policy involves the machine rate versus the walk rate. If you choose to use machines for the employees to ride through the fields, no adjustment is made. However, if you choose to walk through the fields, you get an additional four dollars per acre.

Another Pioneer policy has to do with the pre-pullers. Currently, Pioneer is providing this as part of the normal rates. There are two exceptions to this policy. First, if the puller pulls over 70% of the tassels, your rate is deducted by twenty dollars per acre. The second exception is that if the percentage is below 30%, they add fifteen dollars per acre.
Quick Macro Reference

Here is a list of the macros. You can remove this page and keep it as a quick reference guide when using the program. Here are the single letter macros to press while holding the Ctrl key. The worksheet you should be in when you use the macro is in bold type.

M This allows you to add more names in PAY.
D You are done entering names in PAY. Also acts as a reset button after other macros.
H Sorts the names by total hours in PAY.
K Defines the columns you want to hide before printing the PAY report.
W Hides the columns you choose to hide in PAY.
Y Unhides the columns after you are done printing in PAY.
P Will start the print function in any worksheet.
A Allocates the summary data to the individual fields from the SUMMARY worksheet.
F Divides the data into pulls for each field in each field’s worksheet. You must do this in each worksheet.

To activate the following macros, you must use the Tools Macro Run sequence to run.

\make100, \make150, \make200, \make250

Each of these will change the number of employees accordingly.