

**SOUTH
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TECHNICAL NOTE

Subject: ECONOMICS

Series No.: 611

**Reference: Interactive Conservation Evaluation
System (ICE)**

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**SOIL CONSERVATION SERVICE
U. S. DEPARTMENT OF AGRICULTURE**

SNTC TECHNICAL NOTE 611

Interactive Conservation Evaluation System

(ICE)

The purpose of this Technical Note is to provide a reference manual for the Interactive Conservation Evaluation System (ICE). The screens in this manual will assist users in loading and running the ICE program. The help screens, shown with each data entry and summary screen, describe the required input data and analysis options available in ICE.

The ICE program provides a computerized process to assist land users in evaluating and selecting alternative soil and water conservation measures to solve sheet and rill erosion problems. ICE is currently available only in MS-DOS. It will be compiled in UNIX at a later date. The MS-DOS version will work on the AT&T 6300, IBM PC, and most IBM compatible computers. ICE is an integral part of the FOCAS CAMPS System.

It is recommended that a working copy of the ICE disk be made prior to using the ICE program. After making a copy, the original disk should be stored in a safe place. A blank disk should also be formatted to store the ICE files on, if the program is to be loaded from a floppy disk drive. The ICE program may be copied to a sub-directory on a hard disk if your computer is equipped with one.

Before loading ICE, a CONFIG.SYS file should be available or placed in the root directory of the boot disk containing the parameter FILES=20. This will allocate space in the computer memory for the files that ICE uses. Use the DOS command COPY CON to create or modify the CONFIG.SYS file.

To start ICE, type ICE at your system prompt. Screen one, page 2 will then appear. Prompts and instructions on the screens direct data entry and movement around in the program. It is suggested that a new user read through the ICE screens in this technical note before entering data into ICE. It is also suggested that data be entered into the crop, practice, soil, and water files first, and then brought into the landuser alternatives with the autoselect option.

Screen 1

Interactive Conservation Evaluation System

The ICE program provides a computerized process to assist land users in evaluating and selecting alternative soil conservation measures

Please select:

- [F1] Help on landuser and autoselect files
- [F2] Help on function key and screen prompts
- [F3] Menu flowchart
- [PgDn] Enter system

[Alt D] View disk directory [ESC] Exit system

Source: Initial Screen after booting program by typing "ICE <CR> " at A).

Screen 2

10 March 1987

Help Information

5:30:07 P.M.

The ICE System uses 5 types of disk files:

1. Landuser
2. Crop autoselect
3. Practice autoselect
4. Soil autoselect
5. Water Conservation Impacts

The landuser file stores data for up to 250 landusers. This data includes location and resource problems, without treatment conditions, and alternative treatment conditions.

The crop, practice, and soil autoselect and water conser. files each store up to 100 data items. These files give the conservationist a handy way of building, displaying, and retrieving regional or local information for crops, practices, soils, and water conservation impacts.

[ESCAPE] Return

Source: F1, Initial Screen.

You navigate around the ICE System by pressing function keys 1 - 10, pageup, and pagedn keys. The prompts at the bottom of each screen display the keys available for that screen. In some cases the prompt will ask you to hold down the [ALT] key simultaneously.

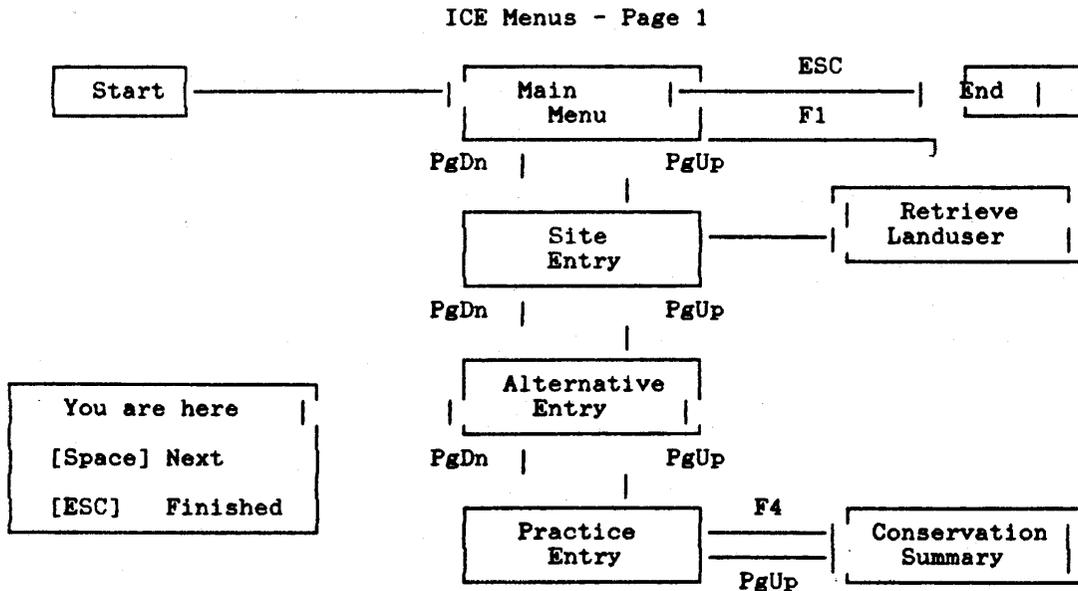
The [F10] key always provides help pertaining to the screen you are on.

The following keys are available on most screens:

- [Alt - C] Select color/monochrome screen
- [Alt - D] Disk directory
- [Alt - E] Error Analysis
- [Alt - G] Go to an alternative
- [Alt - W] Display Water Conservation Impacts
- [Alt - F10] Delete all fields on the screen

[ESCAPE] Return

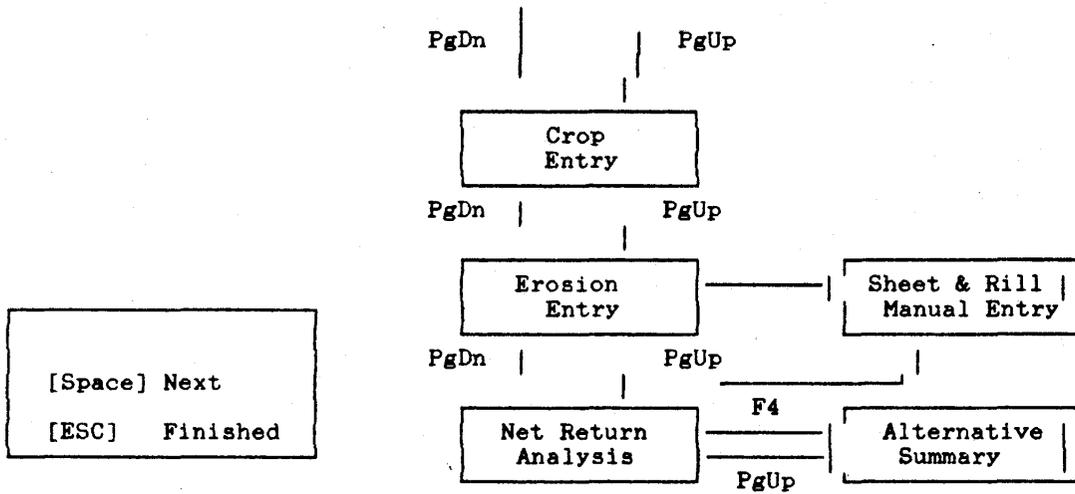
Source: F2, Initial Screen.



Source: F3, Initial Screen.

Screen 5

ICE Menus - Page 2



Source: Spacebar, Ice Menus - Screen 4.

Screen 6

Select directory to view

- [F1] Directory of landuser files
- [F2] Directory of crop autoselect files
- [F3] Directory of practice autoselect files
- [F4] Directory of soil autoselect files
- [F5] Directory of water conservation files
- [F6] Directory of all files

Source: Alt D, Initial Screen.

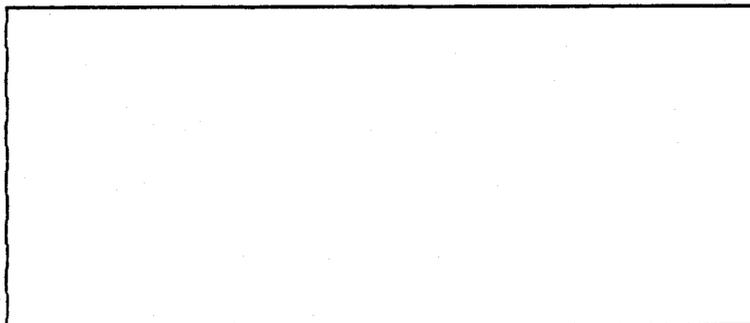
[ESC] Finished viewing

Screen 7

11 March 1987

Directory of all files

11:31:05 A.M.



Enter drive/directory:

Source: F6, from Select Directory to View - Screen 6.

Screen 8

11 March 1987

Directory of all files

11:32:52 A.M.

CROPIN	.CAS	LANDM	.DAT	LANDM	.KEY
PRACIN	.PAS	SOILIN	.SAS	WATERIN	.WAS

] Move up

A:

(50 percent full)

(6 files)

[F1] View another directory

[ESC] Finished viewing

Source: Dir<CR>, Directory of all files, Screen 7.

Screen 9

11 March 1987

Interactive Conservation Evaluation System

11:38:07 A.M.

Version 5.3 - Main Menu

Date 11 MAR 1987	Conservationist
---------------------	-----------------

Enter crop autoselect file name: CROPIN

Source: Page Dn, Initial Screen.

Screen 10

10 March 1987

Interactive Conservation Evaluation System

4:52:42 P.M.

Version 5.3 - Main Menu

Date 10 MAR 1987	Conservationist
---------------------	-----------------

Land user file: LANDM.DAT

Crop file: CROPIN.CAS

Practice file: PRACIN.PAS

Soil file: SOILIN.SAS

Water Cons. file: WATERIN.WAS

[PageDn] New site location		
[F2] Retrieve site location (landuser)	[F3] Change/view files	
[F4] Continue with current site location (landuser)		
[F8] Save current landuser	[F10] Help	[ESC] Exit Program

Source: <CR> after each file is created or retrieved in Screen 9.

Screen 11

10 March 1987

Help Information

5:24:07 P.M.

<p>This is the main menu. From here you can start a new landuser (page down), retrieve a landuser (F2), view and/or change the crop, practice, soil and landuser files (F3), save a landuser (F8) or exit the program (ESC). BE SURE the last program run is saved (F8) before exiting (ESC).</p>

[ESCAPE] Return [F10] More help

Source: F10, Main Menu - Screen 10

Screen 12

10 March 1987

Display of Landusers

4:56:10 P.M.

Land user Name	I.D.
Carl Ruston ctu 1	1269
Carl Ruston ctu 2	1269
Jack Shirley	1083
Jack Tomall	1312
Marty Oakes	1145
Ray Hills, field 1	1162
Ray Hills,field 2,4	1162
Ray Hills,field 7	1162

Land user file: LANDM.DAT

[F1] Retrieve land user [F2] Replicate land user [ESC] Return main menu
[F9] Delete land user [F10] Help

Source: F2, Main Menu. - Screen 10.

Screen 12A

18 March 1987

Help Information

6:11:23 P.M.

This is the Landuser Retrieval Screen. The landusers listed are those currently contained in the landuser file. Press the up/down arrows or pageup/pagedn to select the landuser. Press F1 to retrieve the data or press ESCAPE to return to the main menu without selection. Press F9 to delete a landuser.

[ESCAPE] Return [F10] More help

Source: F10, Display of Landusers - Screen 12.

Current file

[F1]	Change landuser file.....	LANDM.DAT
[F2]	Change crop autoselect file.....	CROPIN.CAS
[F3]	Change practice autoselect file.....	PRACIN.PAS
[F4]	Change soil autoselect file.....	SOILIN.SAS
[F5]	Change water autoselect file.....	WATERIN.WAS

[ALT D] Directory [ESC] Return to main menu

Source: F3, Main Menu - Screen 10.

Screen 14

10 March 1987

Site Information

5:39:34 P.M.

Land user Carl Ruston ctu 1		
Land user (operator) ID 1269	State code 01	
MLRA no. 133	Location code 5099	CTU or field no. 1

Last Conservationist: None

Last Date: 10 MAR 1987

[PageDn] Begin treatment entry	[PageUp] Return to main menu
[F3] Print	[F10] Help

Source: Page Dn, Main menu - Screen 10.

Screen 15

10 March 1987

Help Information

5:42:22 P.M.

<p>This is the Site Entry Screen. You enter the landuser name and locally selected identifier code, the state, MLRA and location codes and the CTU or field number. The Site Entry should uniquely identify the landuser or cooperater and the field(s) which are being evaluated for conservation practices.</p>

[ESCAPE] Return [F10] More help

Source: F10, Site Information - Screen 14.

Screen 16

10 March 1987

Alternative Entry - Without Condition

5:53:20 P.M.

Soil Name	
Red bay ls 2-5 %	
Resource Problem	Problem Description
Erosion	Sheet and rill A
Interest Rate	Period of Analysis
11	25
Alternative Description	Total Acres
no treatment	50

[PageDn] Practice entry	[PageUp] Site entry
[F3] Print	[F5] Autoselect
	[F10] Help

Source: Page Dn, Site Information - Screen 14.

Screen 17

10 March 1987

Help Information

6:05:46 P.M.

This is the Alternative Entry Screen. You enter the soil name & description (optional), total acres, resource problem, interest rate, & period of analysis fields. The entry fields soil name through period of analysis are entered only on the without condition, then displayed with each alternative. The autoselect (F5) will enable retrieval of soil name from the soils data file. It will also retrieve soils data for the Erosion Data Entry, which appears later. Use the arrow keys to select resource problem/description. Ephemeral/gully, wind and irrigation are not available now. The without condition is the anticipated land use and related condition that is projected to occur in the future under no improvements or with existing improvements. The interest rate should represent (1) the prescribed Federal discount rate, (2) the current local borrowing rate for agricultural loans or (3) the opportunity cost of using owned capital. The period of analysis controls the length of time over which the erosion impacts are evaluated. If you enter total acres, you will be prompted for rotation years instead of crop acres on the crop data entry screen.

[ESCAPE] Return [F10] More help

Source: F10, Alternate Entry - Screen 16.

Screen 18

10 March 1987

Autoselection of soil data

5:56:19 P.M.

Name	R	K	L	S	C	P	Depth	Density
Bonifay fsl 0-5 %	450	.17	150	3			10	1.2
Dothan fsl 0-2%	450	.24	150	1			9	1.2
Dothan fsl 2-5 %	450	.24	125	3			7	1.2
Dothan fsl 5-8 %	450	.24	100	6			6	1.2
Fuquay ls 1-5 %	450	.15	200	2			8	1.2
Lucy ls 0-5 %	450	.15	200	2			10	1.2
Lucy ls 5-8 %	450	.15	100	6			8	1.2
Orangeburg sl 0-2 %	450	.2	200	1			10	1.2
Orangeburg sl 2-5 %	450	.2	150	3			8	1.2
Orangeburg sl 5-8 %	450	.2	100	6			6	1.2
Red bay ls 0-2 %	450	.1	250	1			9	1.2
Red bay ls 2-5 %	450	.1	150	3			7	1.2
Red bay ls 5-8 %	450	.1	100	6			6	1.2
Troup ls 1-5 %	450	.15	200	3			9	1.2
Troup ls 5-8 %	450	.15	100	6			8	1.2

Soil file: SOILIN.SAS

- [] Move cursor [F1] Select item [ESC] Cancel autoselect
- [F7] Replace [F8] Add [F9] Delete [F10] Help

Source: F5, Alternative Entry - Screen 16.

Screen 19

10 March 1987

Help Information

6:11:02 P.M.

This is the Autoselect screen. Press the up/down arrows, the first letter of a name, or pageup/pagedn to move the cursor to an autoselect item. Press F7 to replace, F8 to add, or F9 to delete an item. Press F1 to select the item or ESCAPE to cancel selecting an item.

- [ESCAPE] Return [F10] More help

Source: F10, Autoselection of soil data - Screen 18.

Screen 20

10 March 1987

Practice Entry

6:14:17 P.M.

Without condition: no treatment

Practice Name	Code	Unit Cost	No. Units	Life Exp.	% O&M	% Cost Share
1. no treatment	000	0.00	50	0	0	0
2.						
3.						
4.						
5.						
6.						

[PageDn] Crop entry [PageUp] Alternative entry
[F3] Print [F4] Cons. Summary [F5] Autoselect [F10] Help

Source: Page Dn, Alternative Entry - Screen 16.

Screen 21

10 March 1987

Help Information

6:16:53 P.M.

This is the Practice Entry Screen. There can be up to 6 practices per alternative. You enter the practice name and code, the unit cost, number of units to be applied, life expectancy in years, operation and maintenance as a percent of installation cost, and the percent cost sharing. Autoselect (F5) can be used to retrieve most of these data from the practice file. Where practices take cropland out of production, i.e., grassed waterways, filter strips, etc. the acres in the cropland entry screen must be reduced accordingly. Use ALT-W to display/enter water conservation impacts.

[ESCAPE] Return [F10] More help

Source: F10, Practice Entry - Screen 20.

Screen 22

10 March 1987

Conservation Cost Summary

6:26:30 P.M.

Without condition: no treatment

Practice No./Name	Code	Install Cost	Life Expect	O & M	Average Ann. Cost
1. no treatment	000	0	0	0	-----
Total		0		0	0

[PageUp] Practice entry [F3] Print [F10] Help

Source: F4, Practice Entry - Screen 20.

Screen 23

10 March 1987

Help Information

6:29:14 P.M.

This is the Conservation Cost Summary. All practices evaluated, their installation costs, life expectancy, O & M, and average annual cost are displayed. The information for this file can be obtained from the appropriate, up-to-date, flat rate schedule for the FO, or at the state level. If data is missing from the practice entry screen, average annual costs are shown as zero.

[ESCAPE] Return [F10] More help

Source: F10, Conservation Cost Summary - Screen 22.

Screen 24

10 March 1987

Autoselection of practice data

6:19:59 P.M.

Name	Code	Unit Cost	Life Exp	O&M %	Cost Share %
conservation tillage	329	35.00	1	0	0
contour farming	330	3.00	1	0	0
cover & green manure crop	340	29.00	1	0	0
diversion 2'	362	.45	25	3	0
Diversion 3'	362	.77	25	3	0
Diversion 3.5'	362	1.00	25	3	0
farmstead/feedlot windbk	380	.50	50	3	0
fencing, 4 wire barb	382	.46	25	2	0
field border (bahia 2t)	386	91.00	15	5	0
field windbk	392	.50	50	3	0
floodwater diversion	400	2.25	25	3	0
grade stab str-heavy	410	10000.00	25	2	0
grade stab str-light	410	5000.00	25	2	0
grade stab str-medium	410	7500.00	25	2	0
grade stab str-rock	410	2500.00	25	3	0
grassed w.way/outlet heav	412	1200.00	15	3	0

Practice file: PRACIN.PAS
 [] Move cursor [F1] Select item [ESC] Cancel autoselect
 [F7] Replace [F8] Add [F9] Delete [F10] Help

Source: F5, Practice Entry - Screen 20.

Screen 25

10 March 1987

Help Information

6:23:17 P.M.

This is the Autoselect screen. Press the up/down arrows, the first letter of a name, or pageup/pagedn to move the cursor to an autoselect item. Press F7 to replace, F8 to add, or F9 to delete an item. Press F1 to select the item or ESCAPE to cancel selecting an item.

[ESCAPE] Return [F10] More help

Source: F10, Autoselection of practice data - Screen 24.

Screen 26.

10 March 1987

Crop Data Entry

6:32:31 P.M.

Without condition: no treatment

Crop name	Budget I.D.	Ac/Rot Years	Avg Yield	Price/Unit	Other Income	Production Cost/Unit
1. soybeans lcc II	8	50	29	5.00	0.00	5.28
2. peanuts lccII	14	50	3400	.30	0.00	.15
3.						
4.						
5.						
6.						

[PageDn] Erosion entry [PageUp] Practice entry [F1] Next altern.
[F2] Main menu [F3] Print [F5] Autoselect [F10] Help

Source: Page Dn, Practice Entry - Screen 20.

Screen 27

10 March 1987

Help Information

6:35:14 P.M.

This is the Crop Entry Screen. There can be up to 6 crops per alternative. You enter the crop name, budget ID, (i.e., from CBS), acres, average yield, price per unit, other income, and total production cost/unit.

The average yield is an estimate of the present level of production considering the extremes due to climatic conditions. The average is seldom precisely attained on any given field. The ICE program calculates the present value of net returns over time based on sheet and rill erosion using the USLE, a modified productivity index equation and the interest rate entered in the Alternative Entry screen. The Autoselect (F5) can be used to view and retrieve the crop budget data within the crop files. Information for the file can be obtained from appropriate crop or enterprise budgets, such as from CBS or the Extension Service. For DOUBLE CROPPING: place an asterisk after each of the two crop names to be paired. For a second pair to DOUBLE CROP, use a backslash.

[ESCAPE] Return [F10] More help

Source: F10, Crop Data Entry - Screen 26.

Session 28

11 March 1987

Autoselection of crop data

9:35:48 A.M.

Name	I.D.	Yield	Price/ unit	Other Income	Costs/ unit
alfalfa hay maint H	1	4.50	60.00	0.00	75.17
corn lcc II	2	85	2.25	0.00	2.00
corn lcc III	3	75	2.25	0.00	2.21
corn lcc III notill	6	60	2.25	0.00	2.85
corn lcc IV,VI	5	55	2.25	0.00	3.00
corn notill lcc II	4	85	2.25	0.00	2.05
pasture bahia maint	7	7.0	8.70	0.00	6.09
peanuts lccII	14	3400	.30	0.00	.15
peanuts lccIII	15	2800	.30	0.00	.18
peanuts lccIV,VI	16	2400	.30	0.00	.33
soybeans contill lcc2	11	30	5.00	0.00	4.35
soybeans contill lccIII	12	25	5.00	0.00	4.84
soybeans contill lccIV,VI	13	19	5.00	0.00	6.33
soybeans lcc II	8	29	5.00	0.00	5.28
soybeans lcc III	9	25	5.00	0.00	6.60
soybeans lcc IV,VI	10	20	5.00	0.00	10.99

Crop file: CROPIN.CAS
 [] Move cursor [F1] Select item [ESC] Cancel autoselect
 [F7] Replace [F8] Add [F9] Delete [F10] Help

Source: F5, Crop Data Entry - Screen 26.

Screen 29

11 March 1987

Help Information

9:38:49 A.M.

This is the Autoselect screen. Press the up/down arrows, the first letter of a name, or pageup/pagedn to move the cursor to an autoselect item. Press F7 to replace, F8 to add, or F9 to delete an item. Press F1 to select the item or ESCAPE to cancel selecting an item.

[ESCAPE] Return [F10] More help

Source: F10, Autoselection of crop data - Screen 28.

Screen 30

11 March 1987

Sheet and Rill Erosion

9:55:40 A.M.

Without condition: no treatment

Soil: Red bay ls 2-5 %

R factor 450	K factor .15	Percent slope 3
Soil depth 7	Bulk density 1.2	
Length 150	C factor .360	P factor 1

[PageDn] Net Returns Summary [PageUp] Crop entry
 [F1] Next alternative [F2] Main menu [F3] Print
 [F5] Autoselect [F10] Help

Source: Page Dn, Crop Data Entry - Screen 26.

Screen 31

11 March 1987

Help Information

10:00:13 A.M.

This is the Erosion Data Entry Screen. Data entry fields R factor through bulk density are completed only for the without condition, then displayed for each alternative. C and P entries should reflect the crop rotation, tillage method and conservation practices being considered within the alternative. Soil depth should reflect that section of the profile which has the major influence on the productive capacity of the resource.

[ESCAPE] Return [F10] More help

Source: F10, Sheet and Rill Erosion - Screen 30.

Screen 32

11 March 1987

Autoselection of soil data

10:03:13 A.M.

Name	R	K	L	S	C	P	Depth	Density
Bonifay fsl 0-5 %	450	.17	150	3			10	1.2
Dothan fsl 0-2%	450	.24	150	1			9	1.2
Dothan fsl 2-5 %	450	.24	125	3			7	1.2
Dothan fsl 5-8 %	450	.24	100	6			6	1.2
Fuquay ls 1-5 %	450	.15	200	2			8	1.2
Lucy ls 0-5 %	450	.15	200	2			10	1.2
Lucy ls 5-8 %	450	.15	100	6			8	1.2
Orangeburg sl 0-2 %	450	.2	200	1			10	1.2
Orangeburg sl 2-5 %	450	.2	150	3			8	1.2
Orangeburg sl 5-8 %	450	.2	100	6			6	1.2
Red bay ls 0-2 %	450	.1	250	1			9	1.2
Red bay ls 2-5 %	450	.1	150	3			7	1.2
Red bay ls 5-8 %	450	.1	100	6			6	1.2
Troup ls 1-5 %	450	.15	200	3			9	1.2
Troup ls 5-8 %	450	.15	100	6			8	1.2

Soil file: SOILIN.SAS
 [] Move cursor [F1] Select item [ESC] Cancel autoselect
 [F7] Replace [F8] Add [F9] Delete [F10] Help

Source: F5, Sheet and Rill Erosion - Screen 30.

Screen 33

11 March 1987

Help Information

10:06:00 A.M.

This is the Autoselect screen. Press the up/down arrows, the first letter of a name, or pageup/pagedn to move the cursor to an autoselect item. Press F7 to replace, F8 to add, or F9 to delete an item. Press F1 to select the item or ESCAPE to cancel selecting an item.

[ESCAPE] Return [F10] More help

Source: F10, Autoselection of soil data - Screen 32.

Screen 34

11 March 1987

Net Returns and Physical Impact
(No cost sharing)
Without condition: no treatment

10:09:21 A.M.

Crop	Budget ID	Acres	Yield	Gross Returns	Cost of Prod.	Net Returns
soybeans lcc II	8	25.0	29	3625	3828	-203
peanuts lccII	14	25.0	3400	25500	12750	12750
Totals:		50		29125	16578	12547
Weighted net returns per Acre:			251	Avg. annual return:		12021
Erosion rate:		7.9	Total erosion:			395
Other effects: Ephemeral gully damages of \$28.00 per acre.						

[PageUp] Erosion entry [F1] Next alternative [F2] Main menu
[F3] Print [F4] Alternative summary [F10] Help

Source: Page Dn, Sheet and Rill Erosion - Screen 30.

Screen 35

11 March 1987

Help Information

10:12:23 A.M.

This is the Net Return and Physical Impacts. All crops, their gross returns, costs of production, net returns and the erosion rates for the current alternative are displayed. Comments on non-monetary impacts may be entered at the bottom of the summary. The average annual net returns reflect discounted values based on the rate of erosion and subsequent yield reductions over the period of analysis. Water conservation impacts are assumed to be instantaneous, then remain constant throughout the period of analysis. Therefore, these impacts are not discounted when included in the average annual returns.

[ESCAPE] Return [F10] More help

Source: F10, Net Returns and Physical Impact - Screen 34.

Screen 36

11 March 1987

Alternative Entry - 1

10:15:59 A.M.

Soil Name	
Red bay ls 2-5 %	
Resource Problem	Problem Description
Erosion	Sheet and rill A
Interest Rate	Period of Analysis
11	25
Alternative Description	Total Acres
terrace system	50

[PageDn] Practice entry	[PageUp] Site entry
[F3] Print	[F5] Autoselect
	[F10] Help

Source: F1, Net Returns and Physical Impact - Screen 34.

Screen 37

11 March 1987

Practice Entry

10:19:21 A.M.

Alternative 1: terrace system

Practice Name	Code	Unit Cost	No. Units	Life Exp.	% O&M	% Cost Share
1. terrace system light	600	75.00	50	25	2	0
2. contour farming	330	3.00	50	1	0	0
3.						
4.						
5.						
6.						

[PageDn] Crop entry	[PageUp] Alternative entry
[F3] Print	[F4] Cons. Summary
	[F5] Autoselect
	[F10] Help

Source: Page Dn, Alternative Entry - Screen 36.

Screen 38

11 March 1987

Conservation Cost Summary

12:10:03 P.M.

Alternative 1: terrace system

Practice No./Name	Code	Install Cost	Life Expect	O & M	Average Ann. Cost
1. terrace system ligh	600	3750	25	75	520
2. contour farming	330	150	1	0	166
Total		3900		75	687

[PageUp] Practice entry [F3] Print [F10] Help

Source: F4, Practice Entry - Screen 37.

Screen 39

11 March 1987

Crop Data Entry

10:22:07 A.M.

Alternative 1: terrace system

Crop name	Budget I.D.	Ac/Rot Years	Avg Yield	Price/Unit	Other Income	Production Cost/Unit
1. soybeans lcc II	8	50	29	5.00	0.00	5.28
2. peanuts lccII	14	50	3400	.30	0.00	.15
3.						
4.						
5.						
6.						

[PageDn] Erosion entry [PageUp] Practice entry [F1] Next altern.
[F2] Main menu [F3] Print [F5] Autoselect [F10] Help

Source: Page Dn, Practice Entry - Screen 37.

Screen 40

11 March 1987

Sheet and Rill Erosion

10:24:46 A.M.

Alternative 1: terrace system

Soil: Red bay ls 2-5 %

R factor 450	K factor .15	Percent slope 3
Soil depth 7	Bulk density 1.2	
Length 100	C factor .360	P factor .5

[PageDn] Net Returns Summary	[PageUp] Crop entry
[F1] Next alternative	[F2] Main menu [F3] Print
[F5] Autoselect	[F10] Help

Source: Page Dn, Crop Data Entry - Screen 39.

Screen 41

11 March 1987

Net Returns and Physical Impact
(No cost sharing)

10:43:54 A.M.

Alternative 1: terrace system

Crop	Budget ID	Acres	Yield	Gross Returns	Cost of Prod.	Net Returns
soybeans lcc II	8	25.0	29	3625	3828	-203
peanuts lccII	14	25.0	3400	25500	12750	12750
Totals:		50		29125	16578	12547
Weighted net returns per Acre:			251	Avg. annual return:		12322
Erosion rate:		3.5	Total erosion:		175	
Other effects:						

[PageUp] Erosion entry	[F1] Next alternative	[F2] Main menu
[F3] Print	[F4] Alternative summary	[F10] Help

Source: Page Dn, Sheet and Rill Erosion - Screen 40.

Screen 42

11 March 1987

Alternative Summary

10:46:54 A.M.

(Average Annual Values)

Alternative Number	Alternative Description	Avg. Annual Returns	Cons. Cost	Change Net ret.	Erosion Rate
Without	no treatment	12021	0	0	7.9
With 1	terrace system	12322	687	-385	3.5

[PageUp] Net returns [F3] Print [F10] Help

Source: Page Dn, Sheet and Rill Erosion - Screen 40.

Screen 43

11 March 1987

Help Information

10:49:49 A.M.

This is the Alternative Summary. The average annual returns, conservation costs, change in net returns, the per acre soil loss from sheet and rill erosion, and water conservation impacts for all the alternatives are displayed. The tradeoffs in controlling the erosion by the different alternatives can now be interpreted.

[ESCAPE] Return [F10] More help

Source: F4, Net Returns and Physical Impact - Screen 41.

Screen 44

11 March 1987

Alternative Entry - Without Condition

10:54:48 A.M.

Soil Name Red bay ls 2-5 %	
Resource Problem Erosion/water conservation	Problem Description Sheet and rill M - rainfed
Interest Rate 11	Period of Analysis 25
Alternative Description Water conservation	Total Acres 50

[PageDn] Practice entry	[PageUp] Site entry	
[F3] Print	[F5] Autoselect	[F10] Help

Source: "Water conservation" chosen by moving cursor to Resource Problem and pressing right or left arrow key. "Manual" erosion calculation chosen by moving cursor to Problem Description and pressing right or left arrow key.

Screen 45

11 March 1987

Water Conservation Impacts

9:29:17 A.M.

Code	Practice Name	I.D.	Crop Name	Water Cons.	Yield Incr.
330	contour farming	18060	corn chisel M	.08	1.25
330	contour farming	18053	corn chisel M	.15	2.30
330	contour farming	18050	corn conv M	.07	1.15
600	terrace, grad	18055	corn chisel H	.14	2.75
600	terrace, grad	18050	corn conv M	.12	2.50
600	terrace, grad	18059	soybeans conv M	.09	1.25

Water Cons. file: WATERIN.WAS

[] Move cursor

[ESC] Finished

[F7] Replace

[F8] Add

[F9] Delete

[F10] Help

Source: Alt - W, any entry Screen.

Screen 46

11 March 1987

Help Information

9:32:22 A.M.

This is the water conservation impact entry. Enter practice code, practice name, budget i.d. code, crop name, water conserved, and yield increase. The system will automatically put in the practice/crop name if the code is in the respective autoselect file. If water conservation is the resource problem, the program will match for practice and budget i.d. codes to access the water conserved and the yield increases to use in computations on the Net Returns and Physical Impact Summary. Units of measure for water conservation are inches/acre, and for yields effects units/acre, e.g. bushels.

[ESCAPE] Return

[F10] More help

Source: F10, Water Conservation Impacts - Screen 45.

Screen 47

11 March 1987

Depth of erosion yields

11:01:53 A.M.

Without condition: No Treatment

Crop	Inches 0	Inches 3	Inches 5	Inches 7
1. soybeans lcc II	29	27	22	15
2. peanuts lccII	3400	3200	2700	2000

[PageDn] Net Returns Summary [PageUp] Sheet and Rill entry
 [F1] Next alternative [F2] Main menu [F3] Print [F10] Help

Source: Page Dn, Sheet and Rill Entry - Screen 30, if manual option is chosen as shown in Screen 44.

Screen 48

11 March 1987

Help Information

11:04:21 A.M.

This is the manual soil depth and yield entry. Enter the soil depths and yields for each crop under analysis. If the problem description selected on site entry is sheet and rill M, the manual depths and yields entered will be used to compute the average annual returns on the Net Returns and Physical Impact Summary.

[ESCAPE] Return [F10] More help

Source: Depth of erosion yields - Screen 47.

Screen 49

11 March 1987

Net Returns and Physical Impact
(No cost sharing)
Without condition: No Treatment

11:07:24 A.M.

Crop	Budget ID	Acres	Yield	Gross Returns	Cost of Prod.	Net Returns
soybeans lcc II	8	25.0	29	3625	3828	-203
peanuts lccII	14	25.0	3400	25500	12750	12750
Totals:		50		29125	16578	12547
Weighted net returns per Acre:			251	Avg. annual return:		12446
Erosion rate:		7.9	Total erosion:			395
Water conserved:		0.00	Acre feet/year:		0.00	
Other effects: Ephemeral gully damages of \$28.00 per acre.						

[PageUp] Depth of erosion [F1] Next alternative [F2] Main menu
[F3] Print [F4] Alternative summary [F10] Help

Source: Page Dn, Depth of erosion yields - Screen 47.

Screen 50

11 March 1987

Crop Data Entry

2:26:04 P.M.

Without condition: without project

Crop name	Budget I.D.	Ac/Rot Years	Avg Yield	Price/Unit	Other Income	Production Cost/Unit
1. soybean*	1	803	20	5.05	0	6.43
2. wheat*	2	803	32	3.16	0	2.75
3. corn	3	803	61	2.74	0	2.13
4.						
5.						
6.						

[PageDn] Erosion entry [PageUp] Practice entry [F1] Next altern.
[F2] Main menu [F3] Print [F5] Autoselect [F10] Help

Source: Same as Screen 26, except shows*,that indicates soybeans and wheat are double cropped.

Screen 49

11 March 1987

Net Returns and Physical Impact
(No cost sharing)
Without condition: No Treatment

11:07:24 A.M.

Crop	Budget ID	Acres	Yield	Gross Returns	Cost of Prod.	Net Returns
soybeans lcc II	8	25.0	29	3625	3828	-203
peanuts lccII	14	25.0	3400	25500	12750	12750
Totals:		50		29125	16578	12547
Weighted net returns per Acre:			251	Avg. annual return:		12446
Erosion rate:		7.9	Total erosion:	395		
Water conserved:		0.00	Acre feet/year:		0.00	
Other effects: Ephemeral gully damages of \$28.00 per acre.						

[PageUp] Depth of erosion [F1] Next alternative [F2] Main menu
[F3] Print [F4] Alternative summary [F10] Help

Source: Page Dn, Depth of erosion yields - Screen 47.

Screen 50

11 March 1987

Crop Data Entry

2:26:04 P.M.

Without condition: without project

Crop name	Budget I.D.	Ac/Rot Years	Avg Yield	Price/Unit	Other Income	Production Cost/Unit
1. soybean*	1	803	20	5.05	0	6.43
2. wheat*	2	803	32	3.16	0	2.75
3. corn	3	803	61	2.74	0	2.13
4.						
5.						
6.						

[PageDn] Erosion entry [PageUp] Practice entry [F1] Next altern.
[F2] Main menu [F3] Print [F5] Autoselect [F10] Help

Source: Same as Screen 26, except shows*,that indicates soybeans and wheat are double cropped.