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With a History of the Development of FINPACK within the U.S. Extension Service

by

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1. Introduction

This paper summarizes some of the results of the period study of Alessandro Ferrara from September 1, 1995 through December 23, 1995 at the Center for Farm Financial Management, Department of Applied Economics, University of Minnesota. The purposes of that period were:

1. to study the objectives, organization, and methods of the Cooperative Extension Service in the United States;
2. to study three farm management software packages (FINPACK, PLANETOR, and MAP);
3. to deepen his financial management knowledge;
4. to study the necessary adaptations of FINPACK, a farm financial management software package, to apply it in Europe.

This work is structured in two parts. The first shows, briefly, the role of the Cooperative Extension Service in US agriculture. The second explains the main characteristics of the FINPACK software package and the potential to adapt it to European agriculture. Between these two parts is a short summary of the role of FINPACK, and, more generally, of financial management in Extension Service activities.

2. Cooperative Extension Service

2.1 Origins of the Cooperative Extension Service in the USA

As in all countries founded in the New Continents after the Columbus' discovery, the United States needed to organize its own economic system with the available tools. Given the importance of agricultural products in the scale of the human needs, agriculture was the first sector dealt with in this process. In this contest, it was extremely important to optimize information flows, especially concerning the best available agricultural techniques.

As a consequence of those needs since the mid-XIXth century, short training programs were available both to educate and to up-date the knowledge of the farmers. These courses were offered in some states by the State Boards of Agriculture and in other states by colleges and universities.

The need to spread these programs to all states, along with the need to supply a minimum level of the education to the poor formed the basis for the establishment of the Land-Grant Institutions by the Morril Acts of the 1862 and 1890.

In the same year as the first Morril Act, the United States Department of Agriculture (USDA) was founded. In addition, many agricultural experiment stations were created during the last years of XIXth century. In fact, while in 1875 the agricultural experiment station in Connecticut was the first agricultural station in the history of the USA, in 1887, the U.S. Congress established that each state had to create an experiment station directly connected to the Land Grant Universities.

Consequently, not only to rationalize the existing structure but also to optimize available resources, on May 5th 1914 the Smith-Lever Act was approved to establish the Cooperative Extension Service.

2.2 Cooperative Extension Service: Definition, Purposes, and Methods

The Cooperative Extension Service (CES) is an education system which supplies educational, advisory, and technical assistance to farmers. The aim of CES as defined in the Smith Lever Act is "*to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same*". These services are directe at persons who are not attending or who are residents of Land Grant Institutions.

Therefore, the goal of the CES is to apply the results obtained in research developed not only in Land Grant universities but also in experiment stations and in all USDA Extension Services. At the same time, but in the opposite direction, the goal of the CES is to make the needs of the agricultural world clear and to establish directions for further research.

One of the original methods adopted by the CES is the demonstration method. The pervasive diffusion of the demonstration method resulted from the action the Dr. Seaman A. Knapp of the USDA's Bureau of Plant Industry. Dr. Knapp obtained brilliant results in 1914 with 24 county agents in Texas to convince the farmers to adopt improved cotton

growing methods against the cotton weevil.

After this results, Smith County, Texas employed, for the first time in the history of the U.S., 24 full-time county agents. Currently, there is no county in the US which does not have at least one extension agent.

In addition to the demonstration method, other US extension methods are:

1. personal contacts;
2. utilization of software;
3. sponsoring meetings;
4. cooperation or participation in meetings sponsored by other groups;
5. utilization of mass-media;
6. written correspondence;
7. workshops;
8. publications;
9. video-tapes.

2.3 Structural and Functional Organization

There are three levels of the CES: federal, state, and county (figure 1). The relationship among these levels is more like a partnership than hierarchical.

At the federal level is the Federal office, recently renamed the Cooperative States Research, Education and Extension Service (CSREES). The head of this office is an administrator appointed by the Secretary of the Agriculture and reports his activities to the Assistant Secretary for Science and Education. This assistant reports to the Secretary of Agriculture.

Tasks of this federal office are:

1. to approve programs of the state extension services;

2. to allocate funds;

3. to define program objectives;

4. to verify if the funds are used to pursue the congressional purposes and the USDA requirements;

5. to link the Cooperative Extension Service with other federal agencies;

6. to guarantee that the CES is effectively a federal body.

In addition to CSREES, at the federal level, is the Extension Committee on Organization and Policy (ECOP) of the National Association of the State Universities and Land Grant Colleges (NASULGC). This committee represents the body that establishes the programs and the policy strategies for the State Extension Service. This purpose is reached through

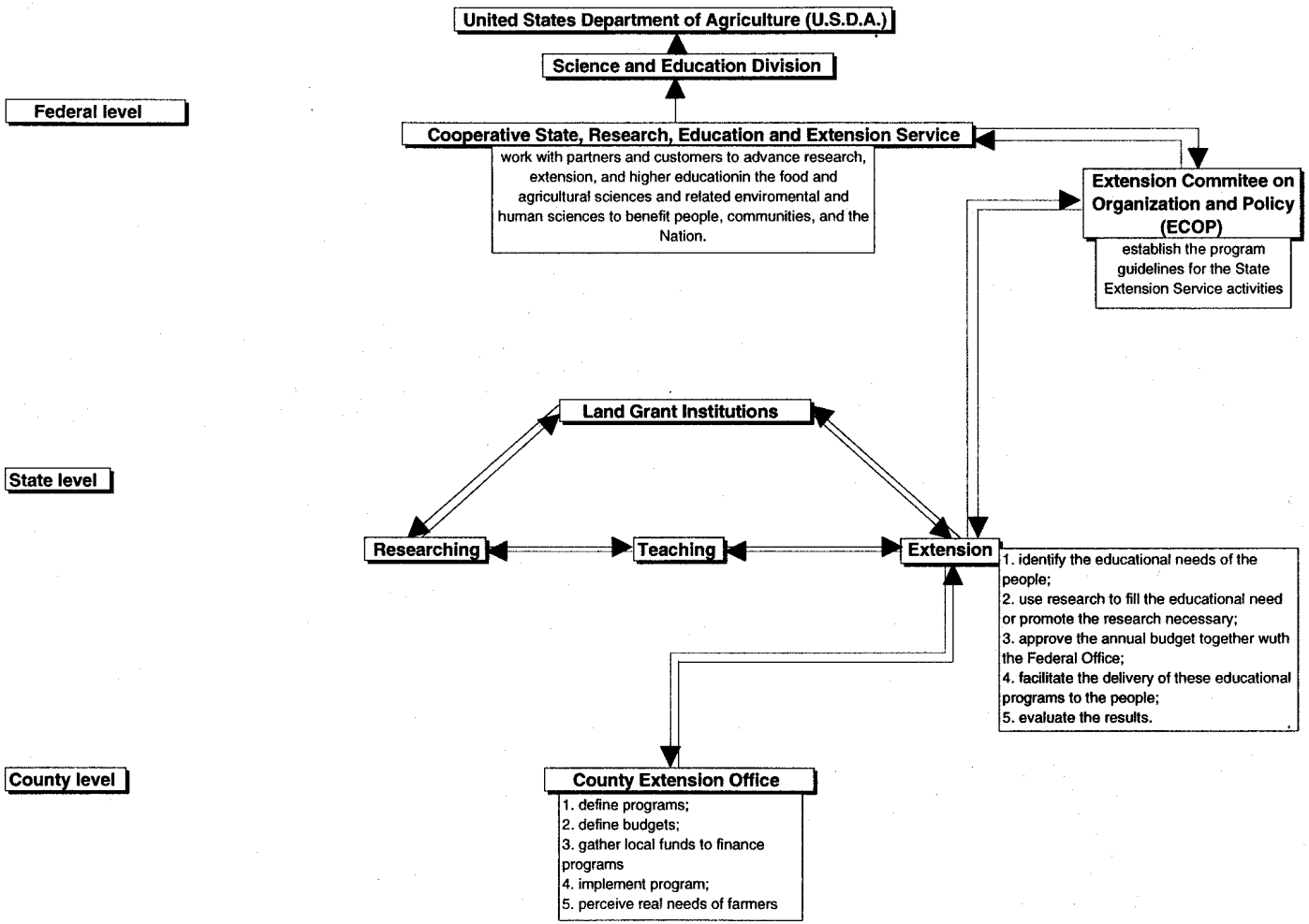

Figure 1: Structural and functional organization of the Cooperative Extension Service

recommendations to the NASULGC and advice to the Extension Service, USDA. ECOP is, therefore, the "board of the directors" of the Cooperative Extension Service. There are three meetings a years of this committee.

At the state level the main structure of the CES is represented by the Land Grant Institutions to which formally belong all Colleges of the University. In practice, the role developed by the Colleges of Agriculture is pre-eminent. The Land Grant Universities carry out three main activities: teaching, research, and extension services.

Land Grant Universities, and particularly the research-task, are the sources of information which flows to the Cooperative Extension Service. From a different point of view, the Extension Service can be defined as a part of the Land Grant Universities that work off campus.

Generally, Extension Service are located in Colleges of Agriculture and they are managed by a director appointed by the university. Normally, the director reports to the dean of the College of Agriculture.

The tasks of the State Extension Service are:

1. identify the educational needs of the people;
2. use research results to fill the educational need or promote the research necessary;
3. approve the annual budget together with the Federal Office;
4. facilitate the delivery of these educational programs to the people;
5. evaluate the results.

At the county level is the County Extension Office. The State Extension Service director is the technical supervisor of the county agents. As mentioned above, each of 3150 counties in the U.S. employs at least one county agent. The county agents implement the so-called "*taking the university to the people*". The other important function of the county agent relates to the supply of information in the opposite direction; in other words, towards the State and Federal Extension service to orient the policy strategies and related programs. Each county has its own County Advisory Board which works with the federal and state extension service to:

1. define programs;
2. define budgets;
3. gather local funds to finance programs.

Programs are formulated at the local level but their characteristics have to be within the general guidelines established at the federal and state level. In particular, the main focuses of the programs are:

1. agriculture and natural resources;
2. education for people between 10 and 18 years old;
3. home economics;
4. community and rural development.

3. The Financial Crisis of the 80's and Expansion of Financial Management Activity

Since the foundation of the Cooperative Extension System, U.S. farmers have experienced four crisises. These were the first world war, the great depression of the 30's, the second world war and the financial crisis of the mid-80s. For the purposes of this work, it is interesting to underline some aspects of the last American agricultural crisis.

3.1 The Situation

For U.S. farmers, the decade of the 70s was relatively positive from an economic standpoint. As a consequence farmers invested large amounts of their own money in their farms. Unfortunately, the economic environment changed during the first years of the 80s. In those years, in fact, there was strong deflation that caused dramatic effects on the financial situation of farms.

One effect of this deflation was that a large portion of gross farm income was used for loan payments; on many farms 20 to 40% of gross income was used to pay loans. Another effect was a decrease in equity. As a result, many farmers could not get additional operating credit. The following data show the dramatic situation:

- around 182,000 farms went out of business;

- around 320,000 farms (1.9% of U.S. farms) had a debt to asset ratio greater than 40%;

- around 860,000 farms (5.4% of U.S. farms) had a negative household cash flow;

- around 12.5% of U.S. farms had an debt to asset ratio of 40% and a negative household cash flows or, in other words, they were close to going bankrupt.

In this situation, the requirements of farmers for Extension's services dramatically changed. Before this period, their major questions concerned crop and livestock production, tax management, and book-keeping. During the 80s, the most frequent questions concerned ways to improve cash flows, debt structure, and tax consequences of debt forgiveness. The main characteristic of the farmers who requested Extension Service assistance during the 80s were:

- medium farm size (gross income between $40,000 and $100,000);

- medium to high education level;

- lower age than the average.

The first of these characteristics shows that, mainly full time farmers asked for assistance from the Extension Service. This was a consequence of the fact that this kind of farm suffered most from the financial crisis.

3.2 The Response

As consequence of the situation described above, the U.S. Congress allocated about 5.5 million dollars to strengthen Extension Service financial management programs for the 1985-88 period. The increase in activities in the field was accomplished by reallocation of employees of the Extension Services and the hiring of new temporary workers. To improve the agent's abilities in financial management, Extension Service specialists organized numerous courses. Not only Extension Service employees participated in these programs but also farmers, agricultural lenders, private consultant, business representatives and other professionals.

In addition to these efforts, materials and tools were produced to enhance professional capabilities in financial

management. Even though these tools were usually designed for local situations, some were adapted to different agricultural situations. This was the case of software packages such as FINPACK, IFFS and videotapes such as Business Management in Agriculture.

As Extension Service efforts represented the answer to the financial crisis from public institutions, the answer from a private institutions came mainly from lenders. Agricultural lenders' roles in Extension Service programs were:

- to attend Extension Service financial management courses;
- to cooperate in the definition of the programs;
- to participate to the teaching along with Extension Service specialists;
- to stimulate participation by farmers in Extension courses by decreasing interest rates or paying fees.

3.3 The Results

The consequences of the previously described efforts were both fast and considerable. It was estimated that farmers who participated to CES programs increased their profits by an average of $20,000 per year over the period of 1985-88. This increase was remarkable when compared to the average cost of Extension programs which amounted to approximately $100 per farm. This $100 not only represented the cost to help improve the financial situation of farmers and, consequently, to reduce the cost of the food and non food products available to U.S. society, but also the cost to help agricultural lenders to save time and money.

It is probable, in fact, that agricultural lender practices were facilitated not only because farmers improved their abilities to prepare balance sheets, income statements and cash flow statements, but also because the credit risks decreased as their customers became better managers.

3.4 The Consequences

As a consequence of mid-80s events, both public institutions and farmers developed a greater awareness of the

importance of the financial management in their farm activities. Maybe the most important result is that farmers today feel that financial managerial ability is an indispensable factor to reach good economic results.

While it is clear that Extension Service courses, tools and materials were indispensable to overcoming the financial crisis, one could wonder whether these programs are consistent with the current situation of the European agriculture and particularly with that of Italian agriculture. The answer needs to be based on the following considerations.

If the financial crisis resulted from unexpected events and if the consequences were limited by improved farm management, we, then, have to admit the needs for the adoption of some instruments in "environments", like the agricultural input and output markets, which are characterized by increasing competitiveness and turbulence.

In addition, it would appear that there is a greater need for such assistance in Europe because of certain structural characteristics (in particular, farm size). Therefore, from a world market view, European, and especially Italian farms, where the average farm is around 7 hectares, will have to build their business success on the optimization of managerial activity.

But if this objective involves improving the managerial ability of farmers, there is need to optimize both the allocation and the utilization of the necessary resources. In this regard, we can reach the objective mentioned above through program planning concerning the education, up-dating and technical assistance for farmers as well as the adoption of necessary tools.

These are the most important reasons why a large part of study period time of the writer in the Department of Applied Economics was spent on one of the most important tools utilized by the Extension Service during the financial crisis of mid-80s. This instrument is the software package called FINPACK.

4. FINPACK : Computerized Farm Financial Planning and Analysis Package

4.1 The Center for Farm Financial Management

A major part of Minnesota Extension Service programming in financial management today, is done by the Center

for Farm Financial Management. The Center is within the Department of Applied Economics of University of Minnesota.

Founded in 1984, as a consequence of the financial crisis previously described , the Center for Farm Financial Management is well-known around the world for its production of several farm management software packages. The first and the most widely known package is FINPACK, today available in its eighth version.

Created in 1972, FINPACK quickly spread during the mid-80s financial crisis. During that period about 43% of the Extension Service agents in the US studied how to use FINPACK.

Today FINPACK is used, with adequate adaptations, in 37 states in the United States. It is also available in Irish and Polish versions. Discussions are in process to produce FINPACK versions for Italy, Argentina, Costa Rica, Lithuania and Estonia.

4.2 Description of FINPACK

4.2.1 Definition

FINPACK is a software package which provides, by the utilization of ad hoc accounting data, information for both planning the activities of farms and evaluating their efficiency.

FINPACK satisfies these needs by:

1. a profitability analysis
2. a liquidity analysis
3. a solvency analysis

4.2.2 Structure

As it is shown in Figure 2, the main components of FINPACK are:

1. Balance Sheets
2. Data Banks
3. Financial Long Range Planning (FINLRB)

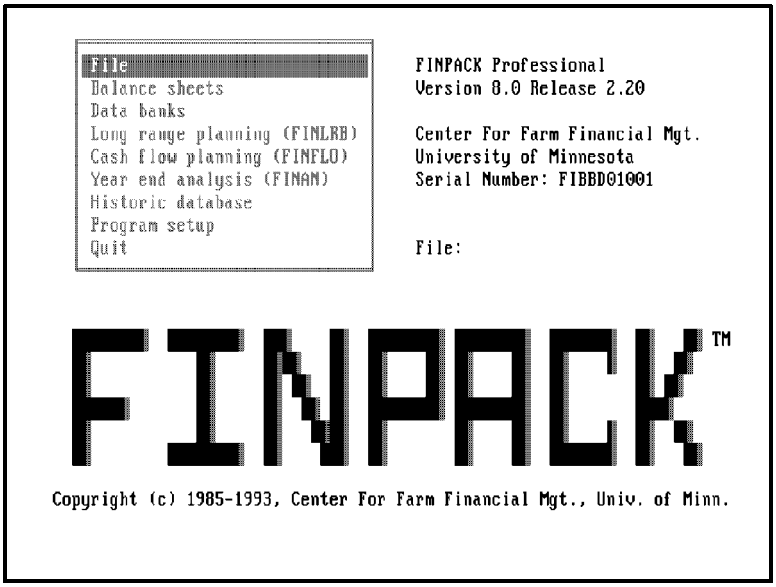

Figure 2: The FINPACK Menu

4. Cash Flow Planning (FINFLO)
5. Year End Analysis (FINAN)

4.2.2.1 Balance Sheets

4.2.2.1.1 Objective of Balance Sheets

As its name implies, Balance Sheets is the FINPACK component which organizes the accounting data in accordance with the format of the balance sheet. The objective of the Balance Sheets section is to store detailed data on

the assets and liabilities of the farm, to establish the solvency position of the farm, and to capture data which will be used in the other sections of FINPACK.

4.2.2.1.2 Balance Sheets Input

The Balance Sheets inputs include all the accounting data necessary to complete a balance sheet. An example input form is shown in figure 3. Given the type of analysis developed by the different components of FINPACK, a high degree of detailed data is required. Balance Sheet data entry consists of thirteen input screens of asset and liability information.

4.2.2.1.3 Balance Sheets Output

The Balance Sheets output is composed of a balance sheet and up to thirteen schedules of detailed balance sheet items. The main characteristics of the FINPACK Balance Sheet are:

1. From a "formal" point of view, the accounting items are organized to fit the format of source and employment with current, intermediate, and long term categories as shown in Figure 3.
2. From a "substance" point of view, the valuation of assets can be based either on historical cost or on market value or on both methods in accordance with U.S. FARM FINANCIAL STANDARDS TASK FORCE recommendations.

Given that FINPACK's aim is to optimize not only farm management but also family management, Balance Sheets also includes non farm assets and liabilities. Furthermore, FINPACK includes deferred liabilities to allow the user to estimate the potential net proceeds from the sale of the farm after all taxes and selling costs.

Valuation Method
- ☐ Market Value
- ☐ Cost Value
- ☐ Both

Government Crop Loan Valuation
- ☐ Full Market Value
- ☐ Net of Loan

FINPACK 8.0 Balance Sheet

NAME: DATE:

CURRENT FARM ASSETS				Value
Cash and checking balance (schedule A)				
Prepaid expenses and supplies (schedule B)				
Growing crops (schedule C)				
Accounts receivable (schedule D)				
Hedging accounts (schedule E)				
Other current assets (schedule F)				
Crops	Quantity		Value Per Unit	
Crops Under Government Loan (schedule G)				
Market Livestock	Number	Avg. Weight	Value Per Unit	
Total Current Farm Assets				
INTERMEDIATE FARM ASSETS				
Breeding Lvstk	Number	Value Per Head	Cost Value	Market Value
Farm Machinery & Equipment				
Other Intermediate Assets				
Total Intermediate Farm Assets				
LONG TERM FARM ASSETS				
Farm Land	Acres	Value Per Acre	Cost Value	Market Value
Farm Buildings				
Other Long Term Assets				
Total Long Term Assets				
TOTAL FARM ASSETS				
NONFARM ASSETS (schedule O)				
TOTAL ASSETS (a) (b)				

CURRENT FARM LIABILITIES								Amount
Accrued interest (sum below)								
Accounts payable and other accrued expenses								
Current loans	Interest Rate	Principal Balance	Accrued Interest	P & I Payment	Month Due			Balance
Annual Operating								
Government Crop Loans								
Principal due within 12 months on term loans (sum below)								
Total Current Farm Liabilities								
INTERMEDIATE	Interest Rate	Principal Balance	Accrued Interest	P & I Payment	Month Due	Final Year	Principal Due	Intermediate Balance
Total Intermediate Farm Liabilities								
LONG TERM	Interest Rate	Principal Balance	Accrued Interest	P & I Payment	Month Due	Final Year	Principal Due	Long Term Balance
Total Long Term Farm Liabilities								
TOTAL FARM LIABILITIES								
NONFARM LIABILITIES (schedule U)								
Net Worth							Cost	Market
Total Farm and Nonfarm Liabilities								
Deferred Tax Liabilities (c)								
TOTAL LIABILITIES (d) (e)								
Retained Earnings / Contributed Capital [a - d]								
NET WORTH [b - e]								

I certify that the statements made by me on this balance sheet are true, complete and correct to the best of my knowledge and belief.

Date ____________________ Signature(s) ____

Figure 3: FINPACK Balance Sheet

4.2.2.2 FINPACK Data Banks

4.2.2.2.1 Objective of Data Banks

A FINPACK Data Bank is a set of budgets used in both the long range planning and cash flow planning components of FINPACK. Two types of budgets are available: crop budgets and livestock budgets (Figure 4 and 5).

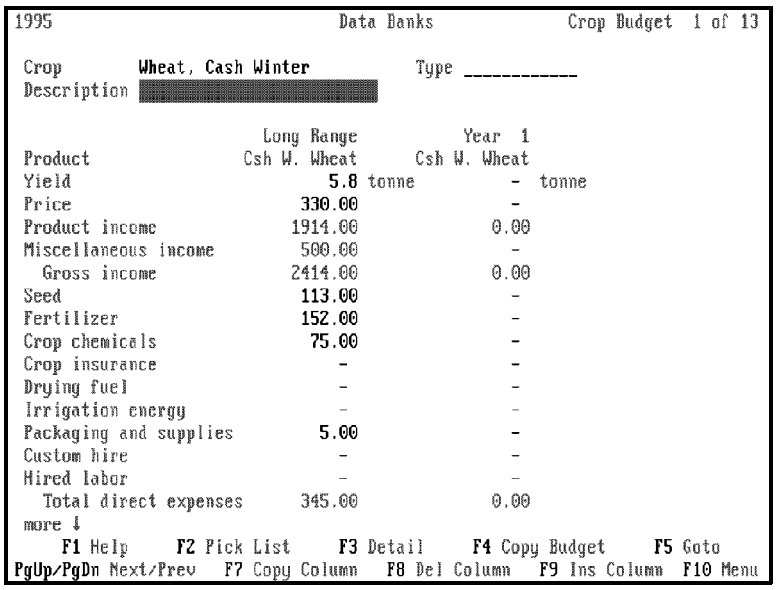

Figure 4: Crop budget

4.2.2.2.2 Data Bank Inputs

The Data Bank Input differs in the two type of budgets. The crop budgets include four main items: income, direct costs, labor requirements and, for feed crops, the feed yields. The livestock budgets include four main items: income, direct costs, labor requirements, and feed requirements.

Two kinds of budgets are established for each activity. One is a typical year budget while the other is a budget for particular years. Yearly budgets can be developed for a period up to ten years.

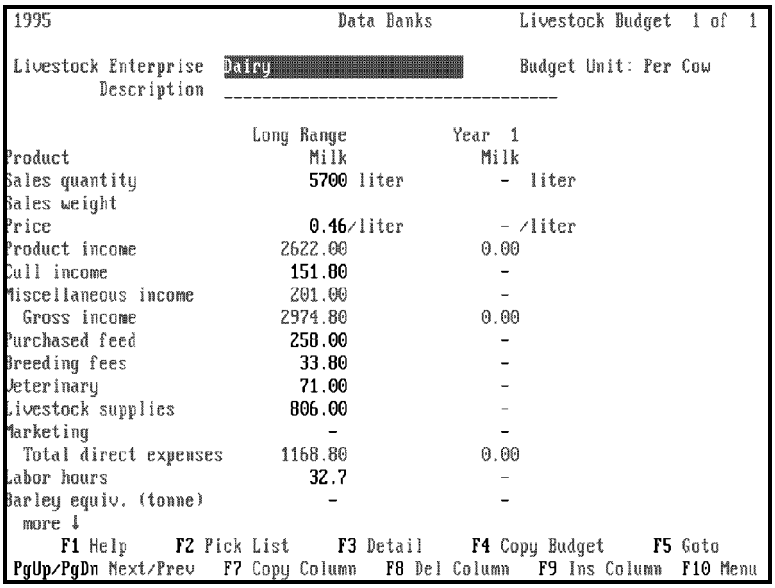

Figure 5: Livestock budget

This distinction is used to supply suitable budgets for long range and cash flow planning. The typical budgets are used for long range planning and the yearly budgets are used for cash flow planning.

4.2.2.3 Financial Long Range Planning (FINLRB)

4.2.2.3.1 Objectives of FINLRB

FINLRB is the FINPACK component which analyzes the profitability, liquidity, and solvency of different alternative farm plans (up to 15) and compares these alternatives to a base plan. As mentioned above, all data refer to the plan for a typical year of farm operation.

4.2.2.3.2 FINLRB Input

FINLRB Data Entry uses data from Balance Sheets, a Data Bank and other data necessary to evaluate alternative hypotheses of farm investments. For each alternative, FINLRB input includes a crop plan, a livestock plan, new

investments and sales of capital to implement the plan, changes in liabilities, related operating expenses, operating interest, depreciations, etc.

4.2.2.3.3 FINLRB Output

The first section of FINLRB Output shows a summary of the plan for each alternative. Then, it presents three main sections regarding the profitability, liquidity and solvency analysis. The profitability is be assessed by comparison of the income statements of each investment alternative and by ratio analysis founded on the return ratios (ROA, ROE, operating profit margin, asset turnover) as shown in Figure 6.

PROFITABILITY MEASURES (Market)		Base Plan
Net farm income	(D)	323,681
Labor & management earnings	(D-E)	125,545
Rate of return on farm assets	(H/I)	6.5 %
Rate of return on farm equity	(J/K)	4.0 %
Operating profit margin	(H/N)	9.4 %
Asset turnover	(N/I)	69.7 %

Figure 6: FINLRB profitability measures

The liquidity analysis includes a projected cash flow statement for a typical year of each alternative plan as shown in Figure 7.

```
      *** LIQUIDITY ***

      CASH FLOW (Typical Year)

      Net cash farm income                              480,345
      Nonfarm income                          (+)           -
      Net cash available                      (=)     480,345
      Family living                           (-)           -
      Corporate income taxes                  (-)           -
(R)   Cash available for principal payments    (=)     480,345
      Farm interest paid                      (+)     223,667
      Cash avail. for principal and interest  (=)     704,012
      Cassa Risparmio Pg                            260,393
      Operating loan interest                        84,750
(S)   Total scheduled principal and interest  (-)     345,143
      Cash available after loan payments      (=)     358,869

      Annual capital replacement                       49,067
      Principal paid on intermediate debts                -
(T)   Cash required for replacement            (-)      49,067

(U)   Cash surplus or deficit                 (=)     309,802
```

Figure 7: FINLRB cash flow

The liquidity analysis continues with a ratio analysis founded on both liquidity ratios and turnover ratios as shown in Figure 8.

```
Years to turnover farm intermed. debt  (W/V)    3.5
Surplus as a percent of payments    (U/(S+T))   78.6 %
Cash farm expense as % of income        (B/A)   87.8 %
Farm interest as % of value of prod.    (F/N)    5.9 %
Farm debt payments as % of value of prod.         9.1 %
```

Figure 8: FINLRB liquidity measures

The solvency analysis includes three parts. The first examines, for each alternative, the level of assets and liabilities and consequently the equity. The second shows the debt structure by presenting several liquidity and solvency ratios (Figure 9).

```
 SOLVENCY MEASURES

Current percent in debt                          59.2 %
Current & intermediate pct in debt               14.7 %
Long term percent in debt                        99.1 %
Nonfarm percent in debt                            -  %
Total percent in debt                  (Y/X)     39.6 %
```

Figure 9: FINLRB solvency ratios

The third shows the projected increase or decrease in the net worth in a typical year for each alternative (Figure 10).

```
 NET WORTH CHANGE (Typical Year)

Net farm income                                  323,681
Nonfarm income                          (+)          -
Family living                           (-)          -
Corporate income taxes                  (-)          -
Net worth change per year                 (=)    323,681
```

Figure 10: FINLRB net worth change

Furthermore, FINLRB includes the following three sections:

1. a financial guideline measures section with 16 ratios recommended by the Farm Financial Standards Task Force;
2. a farm production summary;
3. a sensitivity analysis section.

4.2.2.4 Cash Flow Planning (FINFLO)

4.2.2.4.1 Objectives of FINFLO

While FINLRB helps farmers analyze alternative long range plans, FINFLO is aimed at short term planning of the farm both from a liquidity and physical point of view. The FINFLO approach to planning the financial activities of the farm is the following:

1. when there is a projected cash deficit, the annual operating loan increases;
2. when there is a projected cash surplus, it is used first of all to pay down the annual operating loan;
3. a minimum cash on hand, which can varied from month to month, can be defined.

FINFLO estimates cash flows on a monthly basis, with a planning horizon which can be set to several months, a year or several years (up to ten years). Unlike FINLRB, FINFLO does not use the typical budget year; instead FINFLO uses a particular budget for each period.

As mentioned above, FINFLO does not only financial planning but also physical planning. In addition to the financial flows, FINFLO includes a statement of physical flows related to production. This is especially useful for livestock farms producing feed crops because of the importance of feed inventories.

4.2.2.4.2 FINFLO Inputs

Like FINLRB, a large part of the required FINFLO information flows automatically from a beginning Balance Sheet and the Data Bank budgets. The other FINFLO inputs are generally related to information concerning the distribution and the variation of both quantities and prices. The data inserted in FINFLO include:

1. Crop and livestock plans;
2. The time distribution of farm product sales, related operating expenses, capital purchases and sales, new borrowing, loan payments, and of crop and livestock purchases;
3. Information about the projected ending balance sheet.

4.2.2.4.3 FINFLO Output

FINFLO output includes two main sections: the Cash Flow section (figure 11) and the Physical Flows section (figure 12).

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*** CASH INFLOWS ***									
Beg cash bal	109484	2000	2000	240993	368042	832603	921631	816637	502996
Milk	98325	98325	98325	98325	98325	98325	98325	98325	1179900
Olives	-	-	-	-	-	-	-	2080	4160
Olive Oil	-	-	-	-	-	-	-	3726	7452
Total inflow	278194	220718	759315	622436	1360576	1168755	1090341	991435	4432268
*** CASH OUTFLOWS ***									
Seed	11768	-	-	-	19860	-	-	34700	98082
Fertilizer	43856	-	1188	1188	24835	-	17384	-	95902
Chemicals	7483	10110	10110	5053	-	1430	15168	-	99354
Pkg & supply	40626	1340	40263	39287	3326	-	-	-	126089
C. Labor	-	-	45407	727	-	3840	-	-	49974
Pur. Silage	-	-	701	7641	-	-	-	-	8342
Purch. feed	9673	9673	9673	9673	9673	9673	9673	9673	116081
Breeding	1267	1267	1267	1267	1267	1267	1267	1267	15210
Veterinary	2661	2661	2661	2661	2661	2661	2661	2661	31937
Lstk supply	30213	30213	30213	30213	30213	30213	30213	30213	362555
Fuel & oil	3226	6452	9678	3226	9678	12904	9678	3226	80651
Repairs	6658	6658	13315	6658	13315	19973	13315	6658	119835
Cust hire	4168	4168	4168	4168	8335	4168	4168	8335	75018
Labor	91815	91815	91815	91815	110177	110177	119359	128540	1312948
Farm insur.	-	-	-	-	14782	-	-	-	29563
Utilities	11183	11183	11183	11183	11183	11183	11183	11183	134194
Dues & fees	16055	16055	16055	16055	16055	16055	16055	16055	192663
Misc.	23579	23579	23579	23579	23579	23579	23579	23579	282946
Min end bal	2000	2000	2000	2000	2000	2000	2000	2000	2000
Tot. outflow	356231	217174	313276	256394	300941	249124	275704	278092	3234872
Opr. surplus	-78036	3543	446039	366042	1059635	919631	814637	713343	1197396
*** CAPITAL PURCHASES ***									
Dairy cows	-	-	-	8000	-	-	-	-	8000
Tot. cap pur	-	-	-	8000	-	-	-	-	8000
*** NEW CREDIT ***									
Bank	-	-	-	8000	-	-	-	-	8000
Tot new cred	-	-	-	8000	-	-	-	-	8000
*** LOAN PAYMENTS ***									
Fond.Ist.Ag	-	-	-	-	229032	-	-	-	229032
Ca Ri PG	-	130197	-	-	-	-	-	130197	260393
Tot loan pay	-	130197	-	-	229032	-	-	130197	489425
Surp. or def	-78036	-126653	446039	366042	830603	919631	814637	583147	707971
*** ANNUAL OPERATING LOAN TRANSACTIONS & BALANCES ***									
Beg AO bal	-	78036	204689	-	-	-	-	-	121456
AO borrowing	78036	126653	-	-	-	-	-	-	204689
AO int. pay	-	-	2356	-	-	-	-	-	3368
AO prin. pay	-	-	204689	-	-	-	-	-	326145
End AO bal.	78036	204689	-	-	-	-	-	-	-
Accrued int.	-	650	-	-	-	-	-	-	-
End cash bal	2000	2000	240993	368042	832603	921631	816637	585147	585147

Figure 11: Abbreviated FINFLO cash flows

To evaluate profitability, the variations of inventories is evaluated in addition to cash flows.

*** CROP & LIVESTOCK SUMMARY ***

		Beg	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Hay equivalents											
Produced	tonne		251	219	157	-	-	-	-	-	627
Fed	tonne		46	46	46	46	46	46	46	46	556
Inventory	tonne	368	387	560	670	624	577	531	485	438	438
Silage equivalents											
Produced	tonne		-	-	-	-	941	-	-	-	941
Purchased	tonne		-	-	8	92	-	-	-	-	101
Price	$/tonne		-	-	83.00	83.00	-	-	-	-	83.00
Fed	tonne		92	92	92	92	92	92	92	92	1105
Inventory	tonne	636	176	84	-	-	849	757	665	573	573
Csh W. Wheat											
Produced	tonne		-	-	863	-	-	-	-	-	863
Sold	tonne		-	-	863	-	-	-	-	-	863
Price	$/tonne		-	-	330.00	-	-	-	-	-	330.00
Inventory	tonne	-	-	-	-	-	-	-	-	-	-

Figure 12: FINFLO physical flows

Subsequently, FINFLO makes projections of net farm income, changes in equity and projected balance sheets and income statements.

4.2.2.4.4. Monitoring Worksheet

Another sub-task of FINFLO is a Monitoring Worksheet which permits the user to compare, in the different periods of the accounting year, planned vs. actual results. The Monitoring Worksheet allows the user to continuously monitor the management of cash flows, in order to limit the influence of environmental turbulence on the planned results. The Monitoring Worksheet can be displayed monthly or quarterly.

4.2.2.5 Year End Analysis (FINAN)

4.2.2.5.1 Objectives of FINAN

FINAN is the FINPACK component which allows the user to evaluate the past performance of management from

the point of view of profitability, liquidity, solvency, and physical production. The level of detail that FINAN offers not only allows the user to formulate a comprehensive judgment of the efficiency of the farm but also to identify the strengths and weaknesses of firm management. This is possible because FINAN, in addition to doing a whole farm economic and financial analysis of the past year, permits the user to analyze the efficiency of each enterprise (up to 75 crop enterprises and up to 15 livestock enterprises). Enterprise analysis is, however, optional.

4.2.2.5.2 FINAN Input

Much of the data required for FINAN comes from Balance Sheets which must supply both a beginning and ending statement. The user of FINAN has to provide additional information to complete both the farm income statement and the individual crop and livestock analyses. FINAN needs the following inputs from the past year's accounting data:

1. Purchases and sales of capital;
2. Money borrowed and principal paid on loans;
3. Sales of agricultural products;
4. Farm expenses;
5. Allocation of relating operating expenses between crops and livestock;
6. Detail of crop and livestock enterprise production activities (production unit, production, prices, direct expenses and overhead expenses).

4.2.2.5.3 FINAN Output

The FINAN output includes:

1. A section to check for possible mistakes in the entry of accounting data;
2. An income statement (Figure 13) and profitability ratio analysis, like FINLRB, based on both historical cost and market asset values;
3. A liquidity analysis based on the same criteria as used in FINLRB, but with some difference due to the fact that FINLRB is a financial planning tool while FINAN is a year-end business analysis tool; the liquidity analysis is based both on cash accounting and on accrual accounting;

4. A solvency analysis with emphasis on the change in equity and debt structure;
5. A series of values that summarize the physical production performance of the farm enterprises;
6. An equity statement which highlights the factors determining the change in net worth (retained earnings, contributed capital, market valuation);
7. 16 ratios recommended by Farm Financial Standards Task Force; a large number of these ratios are the same as those used in the previous ratio analysis;
8. A cash flow statement distinguishing the cash flows which came from operating activities, from investing activities, and from financing activities (Figure 14) ;
9. A section summarizing the performance of labor.

*** INCOME STATEMENT ***

CASH FARM INCOME	Quantity	Value	CASH FARM EXPENSE	
Winter Wheat	900 tonne	298,681	Seed	77,815
Barley	31 tonne	9,879	Fertilizer	95,947
Corn	650 tonne	179,676	Crop chemicals	113,946
Tobacco	40,000 kg	234,669	Irrigation energy	1,650
Sugar Beets	4,400 tonne	471,070	Crop miscellaneous	10,080
Confectionary Sunflowers	4,800 100kg	201,016	Purchased feed	225,249
Milk	2,482,333 liter	1,165,780	Real estate taxes	704
Other farm income		685,862	Personal prop taxes	824
			Farm insurance	29,653
			Dues & prof fees	192,663
			Miscellaneous	282,946
Gross cash farm income		3,566,395	(D) Total farm expense	2,833,593
			(E) Net cash income	732,802

INVENTORY CHANGES

		Crop & Feed	Market Livestock	Prepaid Expenses & Supplies	Payables & Accrued Expenses	Total
	End invent.	159,185	-	276,435	Beg 322,725	
	Beg invent. (-)	1,136,450	-	331,777	End 230,952	
(F)	Inv change (=)	-977,265	-	-55,342	91,773	-951,909
(G)	Net oper. profit				(E+F)	-219,107

DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS

		Breeding Livestock	Machinery & Equipment	Buildings & Improvements	Total
	End invent.	521,260	245,335	1,613,956	
	Cap. sales (+)	-	-	-	
	Beg invent. (-)	536,860	118,059	755	
	Cap. purch. (-)	-	-	1,700,000	
(H)	Depreciation (=)	-15,600	127,276	-86,799	-158,400
(I)	Net farm income			(G+H)	-377,507

Figure 13: Abbreviated FINAN income statement

Furthermore, FINAN stores the year to year results and is therefore able to provide a trend analysis of selected items from the balance sheets, principal profitability, liquidity, and solvency ratios, crop yields, and livestock production performance.

Finally, if a FINFLO plan was done for the year, FINAN compares the planned results with the actual income statements, cash flow statements, and crop and livestock production.

```
    *** STATEMENT OF CASH FLOWS ***

(f) Beginning cash balance (farm and nonfarm)   353,220

    CASH FROM OPERATING ACTIVITIES
    Gross cash farm income                    3,566,395
    Net nonfarm income                 (+)            -
    Total cash farm expense            (-)  2,833,593
    Apparent family living expense     (-) -1,241,415
    Income and social security tax     (-)            -
(g) Cash from operations               (=)  1,974,217

    CASH FROM INVESTING ACTIVITIES
    Capital sales                                     -
    Purchase of breeding livestock     (-)            -
    Purchase of machinery & equip.     (-)            -
    Purchase of farm land              (-)            -
    Purchase of farm buildings         (-)  1,700,000
(h) Cash from investing activities     (=) -1,700,000

    CASH FROM FINANCING ACTIVITIES
    Money borrowed                            1,600,000
    Principal payments                 (-)  1,724,441
(I) Cash from financing activities     (=)   -124,441

(j) Net change in cash balance       (g+h+I)    149,776
    Ending cash balance                (f+j)    502,996
```

Figure 14: FINAN statement of cash flows

4.2.2.5.4 FINANSUM

Although this software is not part of FINPACK, FINANSUM is an essential complement especially for institutions which provide technical assistance to farmers. FINANSUM is a software program which stores the FINAN data from individual farms, aggregates them, and provides interfirm analysis. FINANSUM sorts farms based on profitability and provides averages for all farms, the high profit group, and the low profit group. Farms are also grouped based on the type and the size of farms.

FINANSUM also includes a so called "where clause" , which permits the user to aggregate farms in accordance with any item present in the FINAN output.

4.2.3 A General Overview of FINPACK

The main advantage of FINPACK over other software packages is that it is a comprehensive information tool for

farm management. Among the main five components of FINPACK, while Balance Sheets and Data Bank can be considered information supports, the strengths of FINPACK are in FINAN, for the evaluation of firm efficiency, in FINLRB, for long range planning, and in FINFLO, for cash flow planning.

4.3 Potentials of FINPACK

4.3.1 Preliminary Remark

The main objective of accounting book-keeping and all derived statements is to supply information flows concerning an analyzed reality, in order to satisfy the goals and objectives of the subject who is requesting the information. Given that this reality could be analyzed from different perspectives, each of which being more adapted to pursue different objectives, the accounting configurations, which are defined by the choice of both "form" and "substance" subjects, have to be coherent with specified objectives in order to be relevant. Consequently, an information tool, like an accounting tool, is more complete the better it is able to provide information for different goals and objectives.

Therefore, the potential of FINPACK can be analyzed from the prospective of the sequence **subject who needs the information⇒goals⇒accounting configuration.** Given that the main purpose of this work is to describe the potential of this software package, the following discussion will focus on **accounting configurations used in FINPACK⇒potential users of FINPACK⇒pursuable goals with FINPACK**.

4.3.2 FINPACK Accounting Configurations

The comprehensiveness of FINPACK, in respect to the numerous answers it can provide about different aspects of farm financial management, is highlighted by the fact that the potential users of this software are multiple and not only farmers. There are two apparent reasons for this:

1. The characteristic of some sides of the reality can satisfy different goals and objectives;
2. The existence of several accounting configurations in this software.

In order to pursue the purposes of this work, the first of these aspects will be made clear in the next paragraph while this paragraph will show the reasons for the second statement. As it is well known, each accounting configuration

is defined by the choice of the form (formats) as well as the substance (methodology of evaluation). Table 1 summarizes the FINPACK choices concerning the form:

	sheet format in which the accounting items are in decreasing order of liquidity;
B.	a ratio analysis founded on solvency and liquidity ratios;
C.	an analysis of the changes in net worth.
2. For the **economic analysis** (profitability)	
A.	an income statement which presents four main sections: gross cash farm income, cash farm expenses, changes in inventories, and depreciation.
B.	a ratio analysis founded on the return ratios ;
3. For **financial analysis** (liquidity)	
A.	a projected cash flow statement with monthly timing;
B.	a cash flow statement concerning the employment of the available cash
C.	a cash flow statement concerning the sources of the available cash.

Table 1: Formats of FINPACK

Table 2 summarizes the different choices in the substance items:

A.	historical cost valuation
B.	market value valuation
C.	net realizable valuation

Table 2: Methods of valuation in FINPACK

4.3.3 Potential Users of FINPACK

Given the characteristics of FINPACK, it is possible to suggest that the potential users of FINPACK can be subdivided in three categories:

1. farmers;
2. lenders;
3. institutions of education for and technical assistance to farmers.

4.3.4 Pursuable Goals With FINPACK

Given the FINPACK accounting configurations and the potential users, we can say that FINPACK can be used to reach the following goals and objectives:

1. From the point of view of farmers, FINPACK can supply the following information:
    a. information satisfying the goals of farm financial management;
    b. information satisfying the goals related to family management;

    FINPACK reaches these two main objectives by answering the following questions (Figure 15):

    1. "Where am I?", or, "What were the results of my farm activity?"
    2. "Where do I want to be?", or, "How can I improve my results?"
    3. "How can I get there?"

    In effect, FINPACK helps answer: "Is this the optimal allocation of my resources?" FINPACK also increases the financial management ability of farmers. A survey of farm users indicated that using FINPACK improves their knowledge about farm financial management principles.

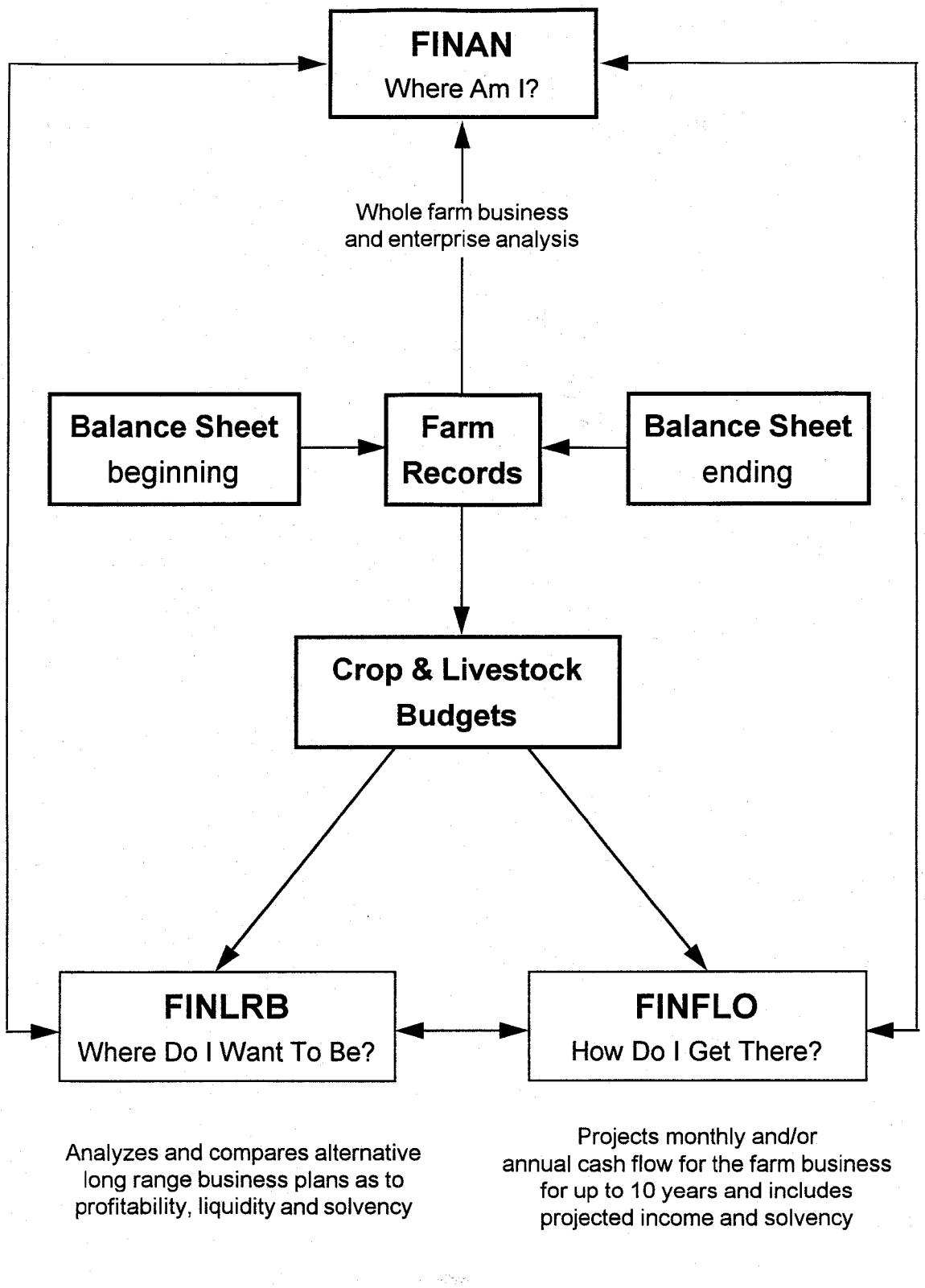

Figure 15: Schematic of FINPACK

Another consideration is that FINPACK makes, on its theoretical base, the distinction between operating management and financing management. This is emphasized by it's economic ratio analysis founded on the return ratios. This distinction has to be considered very important, especially in the agriculture sector, where so often the financial side of the management has been disregarded. It is especially important in this sector because the "timing" of production activities is longer than in other sectors.

But the systems approach that FINPACK permits is not only related to the financial sector of farm management but also to the operating sector. The physical flows are an example. Furthermore, FINPACK permits a continuous monitoring of the farm management, with the FINFLO Monitoring Worksheet with it's monthly or quarterly timing. This approach makes it clear how FINPACK principles are strictly connected to management accounting principles.

2. From the point of view of lenders, FINPACK answers the following questions:

   a. "Is the business sound?", or, "Is he a good manager?"

   b. "Is it going in right direction?", or, "Is the farm plan the best that can be done with available resources?"

   c. "Will it have a repayment capacity in the future?"

   Lenders can answer these questions using FINPACK outputs based on either the historical cost or the market value. This choice depends on whether lenders want to base their decisions on the managerial ability of farmers or on the value of his property.

3. From the point of view of the institutions of education for and technical assistance to farmers, the adoption of FINPACK could provide:

   a. A tool that facilitates education and technical assistance in farm financial management. This includes not only FINPACK, but also connected software packages such as FINANSUM and RankEm, as well as others such as PLANETOR, Manure Application Planner (MAP), and DairyCHAMP related to different aspects of farm management.

      It is important to emphasize that technical assistance can be facilitated because the Data Bank permits the user to reduce the insertion of the data in farms with similar characteristics;

b. A tool which facilitates the education of farmers in financial management principles and the diffusion of accounting tools in agriculture. In this regard, it is important to emphasize that the bookkeeping done by most American farmers is single entry. Many of the problems related to single entry accounting are eliminated in FINPACK. For example, FINAN includes checks on the accuracy of the single entry data on cash and liabilities.

c. A tool which improves the collaboration between farmers who are participating in the Farm Accounting Data Network in European Union countries, through the presentation of the data not only related to farm financial management but also to family management.

All of these attributes make it possible to have a better availability and quality of accounting data which can be used to plan the Common Agricultural Policy.

5. Necessary Adaptations to Implement FINPACK in Europe

FINPACK is already being used in Ireland and Poland. However, there are at least four aspects of FINPACK that will have to be adapted to make FINPACK more broadly available in Europe.

1. Metric units, because the U.S. FINPACK system uses English measures. However, metric units are already being used in the Irish and Polish versions of FINPACK. The Center for Farm Financial Management also makes available an international version of FINPACK which uses metric units.
2. The lists of crop and livestock enterprises and the internal FINPACK distributions of production and expense timing. This is a common problem associated with application of new tools in new environments. All such lists are stored in files external to the FINPACK program so that they are easily changed without changing the program itself.
3. Tax regulation. FINPACK is designed to easily deal with most common methods of calculating income taxation. In addition, FINPACK's Program Setup routine allows the user to easily change tax rates and steps.
4. Agricultural policy. There are two possible ways to handle this problem. The first is to calculate the financial implications of the agricultural policy externally and enter the results into the FINPACK Data Bank. In fact, this is how many facets of U.S. agricultural policy are handled in the U.S. version. The second is to add the ability to

calculate the financial results of agricultural policy into FINPACK. These changes could be very difficult, but, taking into account the common agricultural policy in Europe, these adaptations could be shared among all countries that belong to the European Union.

6. Conclusions

Born in 1972 but developed as an answer to the needs of American farmers during the financial crisis of the mid-80s, FINPACK is a comprehensive software package which provides a great deal of useful information not only relevant to farmers to improve their farm financial management abilities, but also to lenders to better assess the adequacy of loans, and to education and technical assistance institutions to improve the efficiency of their activities.

The existence of FINPACK versions for countries other than the United States demonstrates the remarkable potential of this software for farms of many countries of the world which need, more and more, to adopt adequate computer tools to support their managerial activities. This is all the more true as farms evolve in markets characterized by an increasing degree of turbulence and competition that is especially intense for financial capital.

Therefore, it is the conclusion of this work that FINPACK should be adopted not only in Italy but also more pervasively across the European Union.

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FINPACK BALANCE SHEET

AZIENDA AGRARIA CASALINA — 1 January, 1995

CURRENT FARM ASSETS			Value
Cash & checking balance (Schd A)			502,996
Prepaid expense & supplies (Schd B)			276,435
Growing crops			-
Accounts receivable			-
Other current assets (Schd F)			16,095
Crops (Schd G)	Quantity	Value/Unit	
Corn Silage	636	84.91/tonne	54,000
Alfalfa Hay	63	200.00/tonne	12,600
Alfalfa Hay	171	200.00/tonne	34,200
Alfalfa Hay	112	200.00/tonne	22,400
Sm Grain Hay	15	200.00/tonne	3,000
Straw	253	50.00/tonne	12,660
Alfalfa Hay	7	200.00/tonne	1,350
Cash Corn	67	282.37/tonne	18,975
Market livestock			-
Total Current Assets			954,711

CURRENT FARM LIABILITIES				Balance
Farm accrued interest				-
Farm accounts payable & accrued expenses (Schd P)				
Supplies				39,974
Accounting Office Univer				6,745
Collegio Pio della Sapiea				1,174
Farm Supplies				8
Azienda S. Niccolo'				21,551
Azienda S. Apollinare				161,500
Current Loans (Schd R)	Int Rate	P & I Due		Principal Balance
Opr. loan - Tesoreria	10.00	-		121,456
Fondazione Istr. Agraria	10.00	-		213,053
Principal due within 12 months on term liabilities				-
Total Current Liabilities				565,461

INTERMEDIATE FARM ASSETS		
Breeding Lvst (Schd I)	No.	Market Value
Dairy cows	-	482,700
Bull	-	2,000
Bred heifers	-	32,500
Heifer calves	-	3,310
Bees	-	750
Farm machinery (Schd J)		245,335
Other intermed. (Schd K)		2,132,462
Total Intermediate Assets		2,899,057

INTERMEDIATE FARM LIABILITIES					
	Int Rate	Principal Balance	P & I Due	Principal Due	Intermed Balance
Total Intermediate Liabilities					-

LONG TERM FARM ASSETS	Market Value
Farm land	-
Bldgs & improve. (Schd M)	1,613,956
Other long term assets	-
Total Long Term Assets	1,613,956

LONG TERM FARM LIABILITIES (Schd T)					
	Int Rate	Principal Balance	P & I Due	Principal Due	Lg Term Balance
Cassa d Risparmio Pg	10.00	1,600,000	-	-	1,600,000
Total Long Term Liabilities					1,600,000

TOTAL FARM ASSETS	5,467,724	TOTAL FARM LIABILITIES	2,165,461
NONFARM ASSETS	-	NONFARM LIABILITIES	-
		TOTAL LIABILITIES	2,165,461
TOTAL ASSETS	5,467,724	NET WORTH	3,302,263

I certify that my statements on this balance sheet are true, complete and correct to the best of my knowledge and belief.

Signature(s)_____ Date _____

FINLRB

FINLRB compares the long range profitability, debt repayment capacity, and equity growth potential of up to 15 alternative plans. The alternative plans are compared to a base plan, or the current plan of the farm. The FINLRB output for Casalina includes only a base plan. No attempt was made to look at alternative investment plans.

The base plan for Casalina, given the data available, shows adequate long range profitability, liquidity, and solvency with the assumed production levels and prices.

FINPACK: FINLRB Long Range Plan
Center For Farm Financial Management
(C)1992 University Of Minnesota
User: Center For Farm Financial Mgt.
University of Minnesota

AZIENDA AGRARIA CASALINA
PERUGIA ITALIA
Plan: Base Plan
File: CASALINA
Date: 19 December, 1995

*** PLAN DESCRIPTION***				Base Plan
Total crop hectares				691
Total labor hours				29,664
Change in farm assets				-
Change in farm liabilities				-
Crop Plan	**Yield/Ha**		**Share**	
Cash Winter Wheat	5.8	tonne	100 %	148.8
Cash Winter Barley	4.3	tonne	100 %	33.1
Cash Corn	8.3	tonne	100 %	67.8
Tobacco	3250.0	kg	100 %	22.3
Sugar Beets	40.0	tonne	100 %	113.4
Confectionary Sunflowers	23.8	100kg	100 %	96.0
Alfalfa Hay	9.5	tonne	100 %	66.0
Corn Silage	52.0	tonne	100 %	18.1
Grapes	9.3	tonne	100 %	23.4
Olives	8.9	100kg	100 %	10.6
Sunflowers	15.9	100kg	100 %	28.9
Peppers	155.5	100kg	100 %	2.3
Set Aside	545.0		100 %	60.2
Livestock Plan	**Unit**		**Sales/Unit**	
Dairy	Cow		5700 lite	450
Hay equivalents (tonne)				
Produced				627
Fed				557
Balance				71
Silage equivalents (tonne)				
Produced				942
Fed				1,105
Balance				-163

*** PROFITABILITY ***

INCOME STATEMENT (Typical Year)		Base Plan
Hay equivalents	$ 177/tonne	12,538
Cash Winter Wheat	$ 330/tonne	284,746
Cash Winter Barley	$ 320/tonne	45,477
Cash Corn	$ 282/tonne	158,576
Tobacco	$ 5.80/kg	420,920
Sugar Beets	$ 103/tonne	467,208
Confectionary Sunflowers	$ 42.40/100kg	96,876
Grapes	$ 433/tonne	94,229
Olives	$ 44.00/100kg	4,172
Olive Oil	$ 828/100kg	7,481
Sunflowers	$ 27.80/100kg	12,828
Peppers	$ 26.10/100kg	9,132
Set Aside	$ 1.00/	32,793
Miscellaneous crop income		270,864
Milk	$ 0.46/liter	1,179,900
Cull breeding livestock		68,310
Misc. livestock income		90,450
Other farm income		685,862
(A) Gross farm income		3,942,361
Seed		97,920
Fertilizer		95,876
Crop chemicals		99,373
Packaging and supplies		126,367
Crop hired labor		49,973
Purchased Silage	$ 82.50/tonne	13,444
Purchased feed		116,100
Breeding fees		15,210
Veterinary		31,950
Livestock supplies		362,700
Interest		223,667
Fuel & oil		80,651
Repairs		119,835
Custom hire		75,018
Hired labor		1,312,948
Real estate taxes		704
Personal property taxes		824
Farm insurance		29,653
Utilities		134,194
Dues & professional fees		192,663
Miscellaneous		282,946
(B) Total cash farm expense		3,462,016
(C) Net cash farm income		480,345
Depreciation		156,664
(D) Net farm income		323,681

	PROFITABILITY MEASURES (Market)		Base Plan
	Net farm income	(D)	323,681
	Labor & management earnings	(D-E)	125,545
	Rate of return on farm assets	(H/I)	6.5 %
	Rate of return on farm equity	(J/K)	4.0 %
	Operating profit margin	(H/N)	9.4 %
	Asset turnover	(N/I)	69.7 %
(E)	Interest on farm net worth	(K* 6%)	198,136
(F)	Farm interest paid		223,667
(G)	Value operators labor & mgt		190,641
(H)	Return on farm assets	(D+F-G)	356,708
(I)	Total farm assets		5,467,724
(J)	Return on farm equity	(D-G)	133,040
(K)	Total farm net worth		3,302,263
(N)	Value of farm production		3,812,817

*** LIQUIDITY ***

CASH FLOW (Typical Year)

	Net cash farm income	(C)	480,345
	Nonfarm income	(+)	-
	Net cash available	(=)	480,345
	Family living	(-)	-
	Corporate income taxes	(-)	-
(R)	Cash available for principal payments	(=)	480,345
	Farm interest paid	(+)	223,667
	Cash avail. for principal and interest	(=)	704,012
	Cassa d Risparmio Pg		260,393
	Operating loan interest		84,750
(S)	Total scheduled principal and interest	(-)	345,143
	Cash available after loan payments	(=)	358,869
	Annual capital replacement		49,067
	Principal paid on intermediate debts		-
(T)	Cash required for replacement	(-)	49,067
(U)	Cash surplus or deficit	(=)	309,802

LIQUIDITY MEASURES

	Cash available for principal payments	(R)	480,345
	Annual farm long term principal pymts	(-)	121,476
(V)	Cash available for farm intermed. debt	(=)	358,869
(W)	Farm intermediate debt to be served		-
	Years to turnover farm intermed. debt	(W/V)	-
	Surplus as a percent of payments	(U/(S+T))	78.6 %
	Cash farm expense as % of income	(B/A)	87.8 %
	Farm interest as % of value of prod.	(F/N)	5.9 %
	Farm debt payments as % of value of prod.		9.1 %

*** SOLVENCY ***

	BALANCE SHEET (Market)		Base Plan
	Current farm assets		954,711
	Intermediate farm assets	(+)	2,899,057
	Long term farm assets	(+)	1,613,956
	Nonfarm assets	(+)	-
(X)	Total assets	(=)	5,467,724
	Current farm liabilities		565,461
	Intermediate farm liabilities	(+)	-
	Long term farm liabilities	(+)	1,600,000
	Nonfarm liabilities	(+)	-
(Y)	Total liabilities	(=)	2,165,461
	Net worth	(X-Y)	3,302,263

	SOLVENCY MEASURES		
	Current percent in debt		59.2 %
	Current & intermediate pct in debt		14.7 %
	Long term percent in debt		99.1 %
	Nonfarm percent in debt		- %
	Total percent in debt	(Y/X)	39.6 %

	NET WORTH CHANGE (Typical Year)		
	Net farm income		323,681
	Nonfarm income	(+)	-
	Family living	(-)	-
	Corporate income taxes	(-)	-
	Net worth change per year	(=)	323,681

*** FINANCIAL GUIDELINE MEASURES ***	Base Plan
Liquidity	
Current ratio	1.69
Working capital	389,250
Solvency	
Farm debt to asset ratio	39.6 %
Farm equity to asset ratio	60.4 %
Farm debt to equity ratio	65.6 %
Profitability	
Rate of return on farm assets	6.5 %
Rate of return on farm equity	4.0 %
Operating profit margin	9.4 %
Net farm income	323,681
Repayment Capacity	
Term debt coverage ratio	237.8 %
Capital replacement margin	358,869
Efficiency	
Asset turnover	69.7 %
Operating expense ratio	82.1 %
Depreciation expense ratio	4.0 %
Interest expense ratio	5.7 %
Net farm income ratio	8.2 %

*** CROP AND LIVESTOCK PRODUCTION ***

Cash Winter Wheat	tonne	863
Cash Winter Barley	tonne	142
Cash Corn	tonne	562
Tobacco	kg	72,573
Sugar Beets	tonne	4,536
Confectionary Sunflowers	100kg	2,285
Alfalfa Hay	tonne	627
Corn Silage	tonne	942
Grapes	tonne	218
Olives	100kg	95
Olive Oil	100kg	9
Sunflowers	100kg	461
Peppers	100kg	350
Set Aside		32,793
Milk	liter	2,565,000

*** SENSITIVITY ANALYSIS ***

Effect Of A 2 % Decrease In All Enterprises	
Net farm income	255,020
Cash surplus or deficit	241,142
Net worth change per year	255,020
Effect Of A 10 % Decrease In All Enterprises	
Net farm income	-19,623
Cash surplus or deficit	-33,501
Net worth change per year	-19,623

FINFLO

FINFLO projects monthly cash and physical flows for 1 to 10 years. A projected cash flow for Casalina for 1995 is displayed on the following pages. One of the purposes of FINFLO is to project annual operating loan requirements. The Casalina FINFLO, given the assumptions made and the data available, indicates that Casalina should generate enough cash to pay off existing operating debt in the spring of 1995. There is a period during May-July when additional operating credit is likely to be needed but this additional credit should be paid off by the end of the year.

The inventory summary for each commodity shows that the existing inventories of feed at the beginning of the year should provide enough for the dairy cows until next harvest. A small amount of corn silage may need to be purchased. FINFLO indicates that 1995 should be a profitable year for Casalina.

FINPACK: FINFLO Cashflow Plan for 1995
Center For Farm Financial Management
(C)1992 University Of Minnesota
User: Center For Farm Financial Mgt.
University of Minnesota

AZIENDA AGRARIA CASALINA
PERUGIA ITALIA
Plan: 1995
File: CASALINA
Date: 19 December, 1995

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*** CASH INFLOWS ***													
Beg cash bal	502996	300304	218441	163568	109484	2000	2000	240993	368042	832603	921631	816637	502996
Milk	98325	98325	98325	98325	98325	98325	98325	98325	98325	98325	98325	98325	1179900
Olives	2080	-	-	-	-	-	-	-	-	-	-	2080	4160
Olive Oil	3726	-	-	-	-	-	-	-	-	-	-	3726	7452
Cash Corn	-	-	17453	-	-	-	-	-	140750	-	-	281	158484
Set Aside	-	-	-	32793	-	-	-	-	-	-	-	-	32793
Csh W Barley	-	-	-	-	-	45440	-	-	-	-	-	-	45440
Peppers	-	-	-	-	-	4567	4567	-	-	-	-	-	9135
Csh W. Wheat	-	-	-	-	-	-	284790	-	-	-	-	-	284790
Tobacco	-	-	-	-	-	-	210177	210177	-	-	-	-	420355
Sugar Beets	-	-	-	-	-	-	-	-	467208	-	-	-	467208
Conf. Sunflw	-	-	-	-	-	-	-	-	96876	-	-	-	96876
Grapes	-	-	-	-	-	-	-	-	94229	-	-	-	94229
Sunflowers	-	-	-	-	-	-	-	-	12815	-	-	-	12815
Misc. crop	-	-	-	-	-	-	89070	2555	11946	167441	-	-	271013
Cull stock	5692	5692	5692	5692	5692	5692	5692	5692	5692	5692	5692	5692	68310
Misc. lvstk	7537	7537	7537	7537	7537	7537	7537	7537	7537	7537	7537	7537	90450
Other farm	57155	57155	57155	57155	57155	57155	57155	57155	57155	57155	57155	57155	685862
Total inflow	677512	469014	404604	365071	278194	220718	759315	622436	1360576	1168755	1090341	991435	4432268
*** CASH OUTFLOWS ***													
Seed	-	-	-	31755	11768	-	-	-	19860	-	-	34700	98082
Fertilizer	-	-	-	7450	43856	-	1188	1188	24835	-	17384	-	95902
Chemicals	-	-	-	-	57483	10110	10110	5053	-	1430	15168	-	99354
Pkg & supply	-	-	-	1246	40626	1340	40263	39287	3326	-	-	-	126089
C. Labor	-	-	-	-	-	-	45407	727	-	3840	-	-	49974
Pur. Silage	-	-	-	-	-	-	701	7641	-	-	-	-	8342
Purch. feed	9673	9673	9673	9673	9673	9673	9673	9673	9673	9673	9673	9673	116081
Breeding	1267	1267	1267	1267	1267	1267	1267	1267	1267	1267	1267	1267	15210
Veterinary	2661	2661	2661	2661	2661	2661	2661	2661	2661	2661	2661	2661	31937
Lstk supply	30213	30213	30213	30213	30213	30213	30213	30213	30213	30213	30213	30213	362555
Fuel & oil	3226	3226	6452	9678	3226	6452	9678	3226	9678	12904	9678	3226	80651
Repairs	6658	6658	6658	13315	6658	6658	13315	6658	13315	19973	13315	6658	119835
Cust hire	12503	8335	8335	4168	4168	4168	4168	4168	8335	4168	4168	8335	75018
Labor	137722	137722	110177	91815	91815	91815	91815	91815	110177	110177	119359	128540	1312948
RE taxes	-	-	-	704	-	-	-	-	-	-	-	-	704
Pers prop tx	-	-	-	824	-	-	-	-	-	-	-	-	824
Farm insur.	-	-	14782	-	-	-	-	-	14782	-	-	-	29563
Utilities	11183	11183	11183	11183	11183	11183	11183	11183	11183	11183	11183	11183	134194
Dues & fees	16055	16055	16055	16055	16055	16055	16055	16055	16055	16055	16055	16055	192663
Misc.	23579	23579	23579	23579	23579	23579	23579	23579	23579	23579	23579	23579	282946
Min end bal	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Tot. outflow	256741	252573	243036	257587	356231	217174	313276	256394	300941	249124	275704	278092	3234872
Opr. surplus	420772	216441	161568	107484	-78036	3543	446039	366042	1059635	919631	814637	713343	1197396

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
*** LOAN PAYMENTS ***													
Fond.Ist.Ag	-	-	-	-	-	-	-	-	229032	-	-	-	229032
Ca Ri PG	-	-	-	-	-	130197	-	-	-	-	-	130197	260393
Tot loan pay	-	-	-	-	-	130197	-	-	229032	-	-	130197	489425
Surp. or def	420772	216441	161568	107484	-78036	-126653	446039	366042	830603	919631	814637	583147	707971
*** ANNUAL OPERATING LOAN TRANSACTIONS & BALANCES ***													
Beg AO bal	121456	-	-	-	-	78036	204689	-	-	-	-	-	121456
AO borrowing	-	-	-	-	78036	126653	-	-	-	-	-	-	204689
AO int. pay	1012	-	-	-	-	-	2356	-	-	-	-	-	3368
AO prin. pay	121456	-	-	-	-	-	204689	-	-	-	-	-	326145
End AO bal.	-	-	-	-	78036	204689	-	-	-	-	-	-	-
Accrued int.	-	-	-	-	-	650	-	-	-	-	-	-	-
End cash bal	300304	218441	163568	109484	2000	2000	240993	368042	832603	921631	816637	585147	585147

*** CROP & LIVESTOCK PRODUCTION ***

Enterprise	Units	Production Per Unit	Share	Operator Production
Wheat, Cash Winter	148.8 Ha	5.80 tonne	100	863 tonne
Barley, Cash Winter	33.1 Ha	4.30 tonne	100	142 tonne
Corn, Cash	67.8 Ha	8.30 tonne	100	563 tonne
Tobacco	22.3 Ha	3250.0 kg	100	72475 kg
Sugar Beets	113.4 Ha	40.0 tonne	100	4536 tonne
Sunflowers, Confectionary	96.0 Ha	23.8 100kg	100	2285 100kg
Hay, Alfalfa	66.0 Ha	9.50 tonne	100	627 tonne
Corn Silage	18.1 Ha	52.0 tonne	100	941 tonne
Grapes	23.4 Ha	9.30 tonne	100	218 tonne
Olives	10.6 Ha	8.92 100kg	100	95 100kg
Sunflowers	28.9 Ha	15.9 100kg	100	461 100kg
Peppers	2.3 Ha	155.5 100kg	100	358 100kg
Set Aside	60.2 Ha	545.0	100	32809
Dairy	450.0 Cow	5700.0 liter		2565000 liter
Total crops	691 Hectares			

*** CROP & LIVESTOCK SUMMARY ***

		Beg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Hay equivalents															
Produced	tonne		-	-	-	-	251	219	157	-	-	-	-	-	627
Fed	tonne		46	46	46	46	46	46	46	46	46	46	46	46	556
Inventory	tonne	368	321	275	229	182	387	560	670	624	577	531	485	438	438
Silage equivalents															
Produced	tonne		-	-	-	-	-	-	-	-	941	-	-	-	941
Purchased	tonne		-	-	-	-	-	-	8	92	-	-	-	-	101
Price	$/tonne		-	-	-	-	-	-	83.00	83.00	-	-	-	-	83.00
Fed	tonne		92	92	92	92	92	92	92	92	92	92	92	92	1105
Inventory	tonne	636	544	452	360	268	176	84	-	-	849	757	665	573	573
Csh W. Wheat															
Produced	tonne		-	-	-	-	-	-	863	-	-	-	-	-	863
Sold	tonne		-	-	-	-	-	-	863	-	-	-	-	-	863
Price	$/tonne		-	-	-	-	-	-	330.00	-	-	-	-	-	330.00
Inventory	tonne	-	-	-	-	-	-	-	0	0	0	0	0	0	0
Csh W Barley															
Produced	tonne		-	-	-	-	-	142	-	-	-	-	-	-	142
Sold	tonne		-	-	-	-	-	142	-	-	-	-	-	-	142
Price	$/tonne		-	-	-	-	-	320.00	-	-	-	-	-	-	320.00
Inventory	tonne	-	-	-	-	-	-	0	0	0	0	0	0	0	0
Cash Corn															
Produced	tonne		-	-	-	-	-	-	-	-	563	-	-	-	563
Sold	tonne		-	-	62	-	-	-	-	-	499	-	-	1	562
Price	$/tonne		-	-	282.00	-	-	-	-	-	282.00	-	-	282.00	282.00
Inventory	tonne	67	67	67	5	5	5	5	5	5	69	69	69	68	68
Tobacco															
Produced	kg		-	-	-	-	-	-	36237	36237	-	-	-	-	72475
Sold	kg		-	-	-	-	-	-	36237	36237	-	-	-	-	72475
Price	$/kg		-	-	-	-	-	-	5.80	5.80	-	-	-	-	5.80
Inventory	kg	-	-	-	-	-	-	-	-	-	-	-	-	-	

*** CROP & LIVESTOCK SUMMARY (cont.) ***

		Beg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Sugar Beets															
Produced	tonne		-	-	-	-	-	-	-	-	4536	-	-	-	4536
Sold	tonne		-	-	-	-	-	-	-	-	4536	-	-	-	4536
Price	$/tonne		-	-	-	-	-	-	-	-	103.00	-	-	-	103.00
Inventory	tonne	-	-	-	-	-	-	-	-	-	-	-	-	-	
Conf. Sunflw															
Produced	100kg		-	-	-	-	-	-	-	-	2285	-	-	-	2285
Sold	100kg		-	-	-	-	-	-	-	-	2285	-	-	-	2285
Price	$/100kg		-	-	-	-	-	-	-	-	42.40	-	-	-	42.40
Inventory	100kg	-	-	-	-	-	-	-	-	-	-	-	-	-	
Grapes															
Produced	tonne		-	-	-	-	-	-	-	-	218	-	-	-	218
Sold	tonne		-	-	-	-	-	-	-	-	218	-	-	-	218
Price	$/tonne		-	-	-	-	-	-	-	-	433.00	-	-	-	433.00
Inventory	tonne	-	-	-	-	-	-	-	-	-	-	-	-	-	
Olives															
Produced	100kg		47	-	-	-	-	-	-	-	-	-	-	47	95
Sold	100kg		47	-	-	-	-	-	-	-	-	-	-	47	95
Price	$/100kg		44.00	-	-	-	-	-	-	-	-	-	-	44.00	44.00
Inventory	100kg	-	-	-	-	-	-	-	-	-	-	-	-	-	
Olive Oil															
Produced	100kg		5	-	-	-	-	-	-	-	-	-	-	5	9
Sold	100kg		5	-	-	-	-	-	-	-	-	-	-	5	9
Price	$/100kg		828.00	-	-	-	-	-	-	-	-	-	-	828.00	828.00
Inventory	100kg	-	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunflowers															
Produced	100kg		-	-	-	-	-	-	-	-	461	-	-	-	461
Sold	100kg		-	-	-	-	-	-	-	-	461	-	-	-	461
Price	$/100kg		-	-	-	-	-	-	-	-	27.80	-	-	-	27.80
Inventory	100kg	-	-	-	-	-	-	-	-	-	-	-	-	-	
Peppers															
Produced	100kg		-	-	-	-	-	179	179	-	-	-	-	-	358
Sold	100kg		-	-	-	-	-	175	175	-	-	-	-	-	350
Price	$/100kg		-	-	-	-	-	26.10	26.10	-	-	-	-	-	26.10
Inventory	100kg	-	-	-	-	-	-	4	8	8	8	8	8	8	8
Set Aside															
Produced			-	-	-	32809	-	-	-	-	-	-	-	-	32809
Sold			-	-	-	32793	-	-	-	-	-	-	-	-	32793
Price	$/		-	-	-	1.00	-	-	-	-	-	-	-	-	1.00
Inventory		-	-	-	-	16	16	16	16	16	16	16	16	16	16
Straw															
Inventory	tonne	253	253	253	253	253	253	253	253	253	253	253	253	253	253
Milk															
Produced	liter		213750	213750	213750	213750	213750	213750	213750	213750	213750	213750	213750	213750	2565000
Price	$/liter		0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46

*** PROJECTED CHANGE IN CURRENT INVENTORIES ***

Commodity	Ending Inventory	$/Unit	Ending Value	Begin Inventory	$/Unit	Begin Value
Hay equivalents	438	200.00	87665	368	200.00	73550
Silage equivalents	573	85.00	48701	636	84.91	54000
Csh W. Wheat	0	330.00	13	0	0.00	0
Csh W Barley	0	320.00	106	0	0.00	0
Cash Corn	68	280.00	19023	67	282.37	18975
Olive Oil	0	828.00	8	0	0.00	0
Peppers	8	26.10	200	0	0.00	0
Set Aside	16	1.00	16	0	0.00	0
Straw	253	50.00	12660	253	50.00	12660
Prepaid Expenses & Supplies			276435			276435
Accounts Receivable			0			0
Other Current Assets			16095			16095
Accounts Payable		(Beginning)	230952		(Ending)	230952
Accrued Interest		(Beginning)	0		(Ending)	0
		Subtotal A	691873		Subtotal B	682667

Current Inventory Change (A-B) 9206

*** PROJECTED NET FARM INCOME ***

Gross Cash Farm Income		3929272
Cash Farm Expense (Exc Int)	(-)	3232872
Farm Interest Paid	(-)	176837
Net Cash Farm Income	(=)	519563
Current Inventory Change	(+/-)	9206
Estimated Depreciation	(-)	162044
Projected Net Farm Income	(=)	366725

*** PROJECTED NET WORTH CHANGE ***

Projected Net Farm Income		366725
Nonfarm Income	(+)	0
Family Living Expense	(-)	0
Income Tax & Social Sec.	(-)	0
Nonfarm Interest	(-)	0
Other Nonfarm Expense	(-)	0
Earned Net Worth Change	(=)	366725

FINAN

FINAN measures the performance of the farm during the past year. The Casalina FINAN for 1994 includes an income statement and several ratios of profitability, liquidity and solvency. The 1994 analysis for Casalina shows a large loss. The data is obviously suspect, as shown in the very first section. The amount of cash inflows must equal the cash outflows. Given the data supplied, the authors could not account for the source of all cash outflows for the year.

FINPACK: FINAN 1994 Financial Analysis
Center For Farm Financial Management
(C)1992 University Of Minnesota
User: Center For Farm Financial Mgt.
University of Minnesota

AZIENDA AGRARIA CASALINA
PERUGIA ITALIA
Description: 1994
File: CASALINA
Date: 19 December, 1995

*** ACCURACY CHECKS ***

CASH FLOW CHECK

	Beginning cash balance	353,220	Ending cash balance	502,996
	Gross cash farm income	3,566,395	Total cash farm expense	2,833,593
	Capital sales	-	Farm capital purchases	1,700,000
	Nonfarm income	-	Nonfarm cap purchases	-
	Money borrowed	1,600,000	Principal payments	1,724,441
	Gifts and inheritances	-	Gifts, other outflows	-
	Beg nonfarm savings	-	Ending nonfarm savings	-
(A)	Total cash inflows	5,519,615	(B) Subtotal cash outflows	6,761,030

Apparent money used for family purposes	(A-B)	-1,241,415
Household capital purchases	(-)	-
Income tax and social security	(-)	-
Apparent family living expense	(=)	-1,241,415

LIABILITIES CHECK

Beginning liabilities		2,381,675
Money borrowed	(+)	1,600,000
Principal payments	(-)	1,724,441
Change in accounts payable	(+)	-91,773
Ending liabilities calculated	(=)	2,165,461
Ending liabilities reported	(-)	2,165,461
Discrepancy	(=)	0

*** INCOME STATEMENT ***

CASH FARM INCOME	Quantity	Value	CASH FARM EXPENSE	
Winter Wheat	900 tonne	298,681	Seed	77,815
Barley	31 tonne	9,879	Fertilizer	95,947
Corn	650 tonne	179,676	Crop chemicals	113,946
Tobacco	40,000 kg	234,669	Irrigation energy	1,650
Sugar Beets	4,400 tonne	471,070	Crop miscellaneous	10,080
Confectionary Sunflowers	4,800 100kg	201,016	Purchased feed	225,249
Sunflowers	1,080 100kg	30,186	Breeding fees	10,097
Peppers	540 100kg	14,155	Veterinary	29,458
Grapes	220 tonne	94,123	Livestock supplies	36,888
Olives	235 100kg	10,434	Livestock marketing	3,027
Alfalfa Hay	41 tonne	7,448	Fuel & oil	80,651
Corn Silage	160 tonne	11,972	Repairs	119,835
Set Aside	-	32,814	Custom hire	75,018
Dairy Calves	- head	118,630	Hired labor	1,312,948
Milk	2,482,333 liter	1,165,780	Real estate taxes	704
Other farm income		685,862	Personal property taxes	824
			Farm insurance	29,653
			Utilities	134,194
			Dues & professional fees	192,663
			Miscellaneous	282,946
(C) Gross cash farm income		3,566,395	(D) Total cash farm expense	2,833,593
			(E) Net cash farm income	732,802

INVENTORY CHANGES

		Crop & Feed	Market Livestock	Receivables & Other Income Items	Prepaid Expenses & Supplies		Payables & Accrued Expenses	Total
Ending inventory		159,185	-	16,095	276,435	Beg	322,725	
Beginning inventory	(-)	1,136,450	-	27,170	331,777	End	230,952	
(F) Inventory change	(=)	-977,265	-	-11,075	-55,342		91,773	-951,909
(G) Net operating profit							(E+F)	-219,107

DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS

		Breeding Livestock	Machinery & Equipment	Buildings & Improvements	Other Assets		Total
Ending inventory		521,260	245,335	1,613,956	2,132,462		
Capital sales	(+)	-	-	-	-		
Beginning inventory	(-)	536,860	118,059	755	2,315,739		
Capital purchases	(-)	-	-	1,700,000	-		
(H) Depreciation / cap adj	(=)	-15,600	127,276	-86,799	-183,277		-158,400
(I) Net farm income						(G+H)	-377,507

*** PROFITABILITY (Market) ***

(J)	Net farm income		-377,507
	Labor and management earnings	(J-L)	-549,726
	Rate of return on farm assets	(O/P)	-7.3 %
	Rate of return on farm equity	(Q/R)	-13.2 %
	Operating profit margin	(O/S)	-16.2 %
	Asset turnover rate	(S/P)	45.4 %
(L)	Interest on farm net worth	(R* 6%)	172,219
(M)	Farm interest		-
(N)	Value of operators labor & mgt		-
(O)	Return on farm assets	(J+M-N)	-377,507
(P)	Average farm assets		5,143,877
(Q)	Return on farm equity	(J-N)	-377,507
(R)	Average farm net worth		2,870,309
(S)	Value of farm production		2,337,206

*** LIQUIDITY ***

			Cash	Accrual
	Gross cash farm income	(C)	3,566,395	3,566,395
	Inventory change-income items	(+)		-988,340
(T)	Gross farm income	(=)	3,566,395	2,578,055
	Cash farm expense	(D)	2,833,593	2,833,593
	Inventory change-expense items	(+)		-36,431
(U)	Total farm operating expense	(=)	2,833,593	2,797,162
	Net farm operating income	(T-U)	732,802	-219,107
	Net nonfarm income	(+)	-	-
	Family living & taxes paid	(-)	-1,241,415	-1,241,415
(V)	Available for principal payments	(=)	1,974,217	1,022,308
	Principal pymts on long term debt	(-)	-	-
(W)	Available for intermediate debt	(=)	1,974,217	1,022,308
(X)	Average intermediate debt		-	-
	Yrs to turnover intermediate debt	(X/W)	-	-
	Term debt coverage ratio		999 %	999 %
	Operating expense as % of income	(U/T)	79 %	108 %
	Interest as a % of income		- %	- %

*** SOLVENCY (Market) ***

	Begin	End
Total assets	4,820,030	5,467,724
Total liabilities	2,381,675	2,165,461
Net worth	2,438,355	3,302,263
Change in net worth	863,908	
Current percent in debt	129 %	59 %
Current & intermediate pct in debt	49 %	15 %
Long term percent in debt	- %	99 %
Nonfarm percent in debt	- %	- %
Total percent in debt	49 %	40 %

*** CROP SUMMARY ***

Total crop hectares	628
Crop hectares owned	628
Crop hectares cash rented	-
Crop hectares share rented	-

*** CROP YIELDS ***	Hectares	Yield
Winter Wheat	148.8	5.8 tonne
Winter Barley	33.1	5.6 tonne
Corn	67.8	8.3 tonne
Tobacco	22.2	1,823.0 kg
Sugar Beets	113.4	40.1 tonne
Confectionary Sunflowers	96.0	23.8 100kg
Sunflowers	28.9	16.0 100kg
Olives	10.6	8.9 100kg
Grapes	23.4	9.4 tonne
Corn Silage	18.1	53.0 tonne
Alfalfa Hay	66.0	9.5 tonne

*** CROP PRICES ***	Price
Winter Wheat	331.87 / tonne
Barley	316.63 / tonne
Corn	276.42 / tonne
Tobacco	5.87 / kg
Sugar Beets	107.06 / tonne
Confectionary Sunflowers	41.88 / 100kg
Sunflowers	27.95 / 100kg
Peppers	26.21 / 100kg
Grapes	427.83 / tonne
Olives	44.40 / 100kg
Alfalfa Hay	183.90 / tonne
Corn Silage	74.82 / tonne

*** LIVESTOCK SUMMARY ***

Dairy

Avg. number of Cows	450.0
Milk produced per Cow	5,516
Avg. milk price per liter	46.96

*** STATEMENT OF OWNERS EQUITY ***

(a)	Beginning net worth		2,438,355
	Net farm income		-377,507
	Net nonfarm income	(+)	-
	Apparent family living expense	(-)	-1,241,415
	Income and social security tax	(-)	-
	Change in nonfarm assets	(+)	-
	Change in nonfarm accounts payable	(+)	-
(e)	Total change in net worth	(b)	863,908
	Ending net worth	(a+e)	3,302,263

*** FINANCIAL GUIDELINES RATIOS ***

LIQUIDITY	Begin	End
Current ratio	0.78	1.69
Working capital	533,058	389,250

SOLVENCY (Market)	Begin	End
Farm debt to asset ratio	49 %	40 %
Farm equity to asset ratio	51 %	60 %
Farm debt to equity ratio	98 %	66 %

PROFITABILITY	Market
Rate of return on farm asset	-7.3 %
Rate of return on farm equity	-13.2 %
Operating profit margin	-16.2 %
Net farm income	-377,507

REPAYMENT CAPACITY	Cash	Accrual
Term debt coverage ratio	999 %	999 %
Capital replacement margin	1,974,217	1,022,308

EFFICIENCY	
Asset turnover rate (market)	45.4 %
Operating expense ratio	108.5 %
Depreciation expense ratio	6.1 %
Interest expense ratio	- %
Net farm income ratio	-14.6 %

*** STATEMENT OF CASH FLOWS ***

(f)	Beginning cash balance (farm and nonfarm)		353,220
	CASH FROM OPERATING ACTIVITIES		
	Gross cash farm income		3,566,395
	Net nonfarm income	(+)	-
	Total cash farm expense	(-)	2,833,593
	Apparent family living expense	(-)	-1,241,415
	Income and social security tax	(-)	-
(g)	Cash from operations	(=)	1,974,217
	CASH FROM INVESTING ACTIVITIES		
	Sale of breeding livestock		-
	Sale of machinery & equipment	(+)	-
	Sale of farm land	(+)	-
	Sale of farm buildings	(+)	-
	Sale of other farm assets	(+)	-
	Sale of nonfarm assets	(+)	-
	Purchase of breeding livestock	(-)	-
	Purchase of machinery & equip.	(-)	-
	Purchase of farm land	(-)	-
	Purchase of farm buildings	(-)	1,700,000
	Purchase of other farm assets	(-)	-
	Purchase of nonfarm assets	(-)	-
(h)	Cash from investing activities	(=)	-1,700,000
	CASH FROM FINANCING ACTIVITIES		
	Money borrowed		1,600,000
	Cash gifts and inheritances	(+)	-
	Principal payments	(-)	1,724,441
	Dividends paid	(-)	-
	Gifts given	(-)	-
(i)	Cash from financing activities	(=)	-124,441
(j)	Net change in cash balance	(g+h+i)	149,776
	Ending cash balance	(f+j)	502,996

*** COMPARATIVE BALANCE SHEETS (Year End at Market) ***

ASSETS	1993	1994
Current farm assets		
Cash and checking balance	353,220	502,996
Prepaid exp & supplies	331,777	276,435
Growing crops	-	-
Accounts receivable	-	-
Crops and feed	1,136,450	159,185
Market livestock	-	-
Other current assets	27,170	16,095
Total current farm assets	1,848,617	954,711
Intermediate Farm Assets		
Breeding livestock	536,860	521,260
Machinery and equipment	118,059	245,335
Other intermediate assets	2,315,739	2,132,462
Total interm farm assets	2,970,658	2,899,057
Long Term Farm Assets		
Farm land	-	-
Buildings & improvements	755	1,613,956
Other long term assets	-	-
Total lg term farm assets	755	1,613,956
Total farm assets	4,820,030	5,467,724
Nonfarm assets	-	-
Total assets	4,820,030	5,467,724
LIABILITIES		
Current Farm Liabilities		
Accrued interest	-	-
Accts pay & accr expense	322,725	230,952
Current farm loans	2,058,950	334,509
Princ due on term loans	-	-
Total current farm liabs	2,381,675	565,461
Intermediate farm liabs	-	-
Long term farm liabs	-	1,600,000
Total farm liabilities	2,381,675	2,165,461
Nonfarm liabilities	-	-
Total liabilities	2,381,675	2,165,461
Net worth	2,438,355	3,302,263
Net worth change	863,908	