



12

ENTREPRENEURIAL SKILLS AND ECONOMICS FOR SMALL ENTERPRISE

Any successful venture requires generation of funds, preparation of project report, financial management, understanding of cost of production and marketing. A proper training is a pre-requisite for any venture and these days there are many on-line sources. Utilizing these before or after undergoing proper training can add to our knowledge and help us to develop more stable and sustainable system. In the following pages we will discuss some of these aspects.



OBJECTIVES

After reading this lesson you will be able to

- recognise various institutions providing funds and subsidy for mushroom;
- understand about basics of financial management and various registers required at the unit;
- enlist technical terms that you may encounter in the project report or managing the unit;
- calculate cost of production of button mushroom in commercial and seasonal units;
- outline marketing system and market price fluctuations in button mushroom;
- select on-line training courses on mushroom production.



Notes

12.1 FUND GENERATION

First essential requirement for establishment of any unit is fund. In our country there are many organisations that provide loan and in some cases, also subsidy. It is important to learn about various government schemes and procedures related to getting loans and subsidies. A good knowledge of the banking procedures and also the terms commonly used in financial transactions will be important. These days information about schemes, the forms required for availing the benefits of the schemes are available on the websites of different agencies. You may contact state department of horticulture/agriculture, extension wing of state agricultural university, KVK of the district and other such agencies. The schemes also vary from state to state.

Some of the agencies whose websites may be visited include:

- National Horticulture Mission (MIDH) - nhm.nic.inhortnet.gov.in
- National Horticulture Board
- Ministry of food processing
- NABARD, etc

You may contact nearest KVK or Horticulture department official for further details.



INTEXT QUESTIONS 12.1

State True or False

- (i) National Horticulture Mission provides subsidy for setting up mushroom unit.
- (ii) It is important to contact state department or KVK for state specific schemes.
- (iii) Subsidy from various agencies and loan can be obtained from the banks for which a proper project report and certificate of training is must.

12.2 FINANCIAL MANAGEMENT

You must learn the basics of financial management that is how to keep record of the financial transactions. You can do it yourself or hire someone depending upon the size of business. In any case, it is important that you understand the basic terms. Some of the books normally kept are:



- Cash Book
- Inventory Record
- Credit Record
- Debtor Book
- Labour Book

12.2.1 Cash Book

In the cash book we write all the money that comes in and goes out (Table 12.1). There are printed cash books available in the market or you may use any notebook with proper binding. In the cash book we daily make entries and on left side we write income and on right side the expenditure.

Table 12.1: Sample of a cash book.

LEFT SIDE Income (Money in)			RIGHT SIDE Expenditure (Money out)		
Date	Item (source of income)	Amount	Date	Item (money was spent on)	Amount
	Total			Total	

12.2.2 Inventory Record Book

You must keep a record of physical items in a separate book that your business has at any point in time. It will let you know what you had at the beginning of the year, what has been added to those items through purchases and production and how much has left your business through sales, consumption, planned use or losses.

12.2.3 Credit Book

In business we do not always get cash for everything we sell. Many a times we give things on credit. It is must to keep record of all the money the customers have to repay for goods and services purchased on credit. For our convenience we may write details of each customer on a separate page. Details in tabular form should include date, item and amount given, total credit, part payment if any, balance and signature.



Notes

12.2.4 Debtor Book

We also do not always pay in cash for all the items we purchase. It is important to keep record of all of this in a separate book. In this debtor book we keep a record of all whom the business owes (those who have supplied goods and services to the business on credit). It will have columns like Date, Description of the item, debt, payment, balance.

12.2.6 Labour Book

Many persons will be working for us in our unit. We need proper details of how much they have worked (number of hours, days or quantity of work done), how much they were paid and when they were paid. All these details are recorded in a separate book.



INTEXT QUESTIONS 12.2

State True or False

- (i) Cash book is one in which we write all the money that comes in and goes out.
- (ii) An Inventory Record keeps a record of physical items that your business has at any point in time.
- (iii) A Credit Book keeps the record of all the money the customers have to repay for goods and services purchased on credit.
- (iv) A Debtor Book: Keep a record of all whom the business owes (those who have supplied goods and services to the business on credit).
- (v) A Labour Book keeps a record of those who had worked for you, and how much and when they were paid for the work done.

12.3 TERMS USED IN PROJECT REPORT

After learning about the source of funds and acquiring good knowledge of the cultivation you will have to make a detailed project report. It is normally required for obtaining any loan or subsidy. First part of the report will deal with technical details of spawn preparation, composting, cropping, land and facilities available with you, etc. Second part of the report will be having financial details that will have details of the money proposed to be spent, loan or subsidy required, how and when you are going to repay, etc. People evaluating the project from financial viability point of view may not always understand the technical aspects of the



project in detail as they may be getting projects of various types. Hence, they use some financial terms or parameters that help them to assess the financial viability of the project. In the report prepared by a consultant you may see many tables with headings like depreciation, balance sheet, NPV & IRR etc. You may like to understand what these terms mean. (Terms explained here have been summarized from 'A Layman's Guide to Financial Terms' by Jason Z. Wei, University of Toronto Scarborough. For further details you can see it on the net).

Amortization

Amortization is the process of amortizing a loan. Given the total loan amount, the interest rate, and the term (i.e., the number of years of borrowing), amortization is the process of finding the equal amount of payment per period and its breakdown between the interest and the principal repayment.

Balance Sheet

A balance sheet provides detailed information about assets and liabilities. A balance sheet is a financial report that shows the financial picture of a company at a given time. It gives you an idea of whether or not you can pay your creditors, how you manage your inventory and how you manage your billing.

Break Even Point

It simply means that what should the minimum production to meet the fixed costs and also the cost of production of the items sold.

Debt Service Coverage Ratio - DSCR

You will see that in project report there will be table entitled DSCR. It is simply the ratio of how much cash you can generate in a year and how much you must pay as interest payments, principle payments and other obligations. In simplest terms it indicates that whether you can make enough money to pay back. DSCR less than one means you will not be able to payback and hence bank will not fund such a project.

Income Statement

An income statement is a report that shows how much revenue a company earned over a specific time period

Internal Rate of Return (IRR)

The Internal Rate of Return is the rate of return from the capital investment. For example, if you put in Rs. 100 today and get Rs. 120 back one year from now, then the internal rate of return or IRR is 20% per year.



Notes

Net Present Value (NPV)

Value of future cash flows in today's terms of investments.

Payback Period

The amount of time required for the cash flows generated by the investment to repay the cost of the original investment. For example, assume that an investment of Rs 6000 will generate annual cash flows of Rs 1000 per year for 10 years. The number of years required to recoup the investment is six years.



INTEXT QUESTIONS 12.3

State True or False

- (i) In amortization the instalment amount is same in different years.
- (ii) Payback Period is the time required for the cash flows generated by the investment to repay the cost of the original investment.
- (iii) Break Even Point means that what should the minimum production to meet the fixed costs and also the cost of production of the items sold.
- (iv) A balance sheet provides detailed information about assets and liabilities.

12.4 COST OF PRODUCTION OF BUTTON MUSHROOM IN DIFFERENT SYSTEMS

Cost of production will depend upon the method of cultivation, number of flushes harvested and biological efficiency. You have learnt that in button mushroom there are two types of systems of cultivation, viz., seasonal and commercial. You have also learnt that all number of flushes harvested by different growers also varies. We here discuss the cost of cultivation under different situations.

12.4.1 Cost of Production of Button in Commercial Production

Cost of production is a function of Biological Efficiency (BE) and number of flushes. While analysing the cost of production per kg in commercial units, there was wide variation due to differences in number of flushes taken per year and Biological efficiency (BE). In one commercial unit cost/kg was Rs 65 at 18% BE & 6 crops/year. There was another grower taking only four crops and having BE of 14%. Cost of production in this case was Rs 120/kg that is much below the economic level. Hence while calculating cost of production per kg mushroom, it



is must to mention the BE and number of flushes harvested. Average cost of mushroom production in the state, as informed by most of the growers, was Rs 65 per kg.

One of the reasons for higher cost of production, which is almost at par with developed countries, is low productivity. In USA, Australia, Europe BE is around 32-35% whereas in the state BE of commercial units is 16-18%. So with same inputs but better use of technology the people in West are getting double crop. The only way to reduce cost of production is to increase BE and harvest more flushes within the same time. How the cost of production changes with change in BE and number of flushes is shown below (Table 12.2). We can see that with 4 crops per year and 17-18% BE, cost of production can be around Rs 100 whereas with 6 crops and BE of 29-30%, it may be only around Rs 40 or so.

Table 12.2: Cost of production (Rs per kg) by commercial growers at different BE and number of crops per year

Crops/year	Biological Efficiency								
	10%	15%	16%	17%	18%	19%	20%	25%	30%
4	175	117	109	103	97	92	87	70	58
5	140	94	88	83	78	74	70	56	47
6	117	78	73	69	65	62	59	47	39

12.4.2 Cost of Production of Button in Seasonal Production

Seasonal growers take only one crop. However, BE varies from 15-25%. The higher BE is due to the fact that growers take only one crop and here they keep on taking flushes as long as mushrooms keep on appearing. There are cases where due to disease the BE may go down to 10% or less. Accordingly, the cost of production changes. Most of the successful growers report 22 % BE (Table 12.3).

The cost of production by seasonal growers is less as they take advantage of the natural conditions to grow mushrooms and do not invest much on electricity. The rental value of land has not been added here. However, the impact of doing so will be 5-7 times more in case of seasonal growers as from a piece of land they take only one flush whereas commercial growers take 5-6 flushes from the same piece of land and accommodate more compost per unit area than it is possible in huts. Interaction with number of seasonal growers indicated that the average cost of production of one kg of mushroom during seasonal cultivation in huts is about Rs 57.



Notes

Table 12.3: Cost of production per kg by seasonal growers at different BE

BE	18%	20%	22%	24%
Hut++Machinery	6.84	6.16	5.60	5.11
Spawn	3.33	3.00	2.73	2.50
Raw material	40.93	36.83	33.48	30.69
Labour	18.80	16.92	15.40	14.10
TOTAL	69.90	62.90	57.20	52.40

12.4.3 Current Position of Marketing System

There is no organized marketing for mushroom. Depending upon the amount of production, farmers sell it in the local markets (district headquarters and blocks) or in metros or big cities. Some of the growers enter into a contract with canners and sell mushrooms at fixed price. Most of the farmers sell their fresh produce in Azadpur Mandi (Delhi). Depending upon the need and prevailing prices, the mushrooms are also sent for sale to far of cities like Patiala, Chandigarh, Jammu, Shimla, Kanpur, Meerut, Jaipur, Mumbai, Kolkatta, Raipur, Patna, Lucknow, Dehradun, Saharanpur, etc. There are some collection Centres as well, some of which are Reliance Fresh, Easy Day, Mother Dairy, etc.

Very small amount of mushroom is also used for pickling by Agencies like; Pachranga (Panipat), Krishna Pickles (Gurgaon), Home Pickles (Jeend), HAIC Pickles (Murthal), Rajesh Pickles (Pehwa), etc.

12.4.4 Market Prices (Fresh)

Exact data on the amount of mushroom sold as fresh is not available. Fresh mushrooms are sold in punnets or in polythene bags. About 5% of the mushrooms are B grade and these fetch much lower price. Theoretically these can be used for pickling or making other products, but only few farmers do it. Average sale price in Azadpur mandi of Delhi during 2017-18 is as shown in Fig. 12.1.

As of now about 70% mushrooms are sold in punnets, 25 % loose and 5% as B grade (Fig. 12.2). The prices obtained for these are shown in Fig. 55. It can be seen that punnets have higher sale value but seem to be less beneficial when prices are too low or too high (Fig 12.3).



Notes

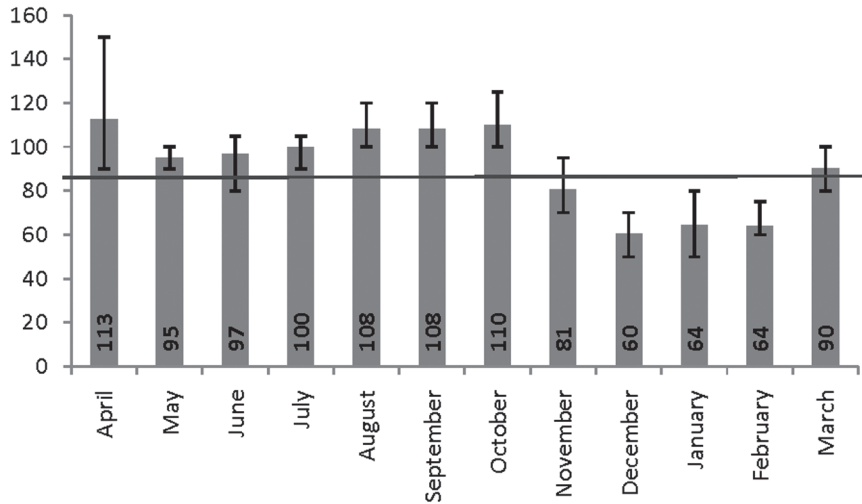


Fig.12.1: Average monthly rates of button mushroom in Azadpur Mandi, Delhi (Horizontal line indicates the average annual price of Rs 91/kg)

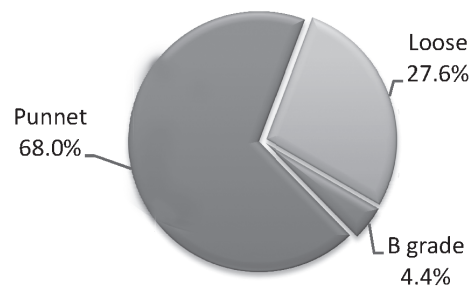


Fig. 12.2: Relative sale of punnets, loose and B grade mushrooms (2015-17)

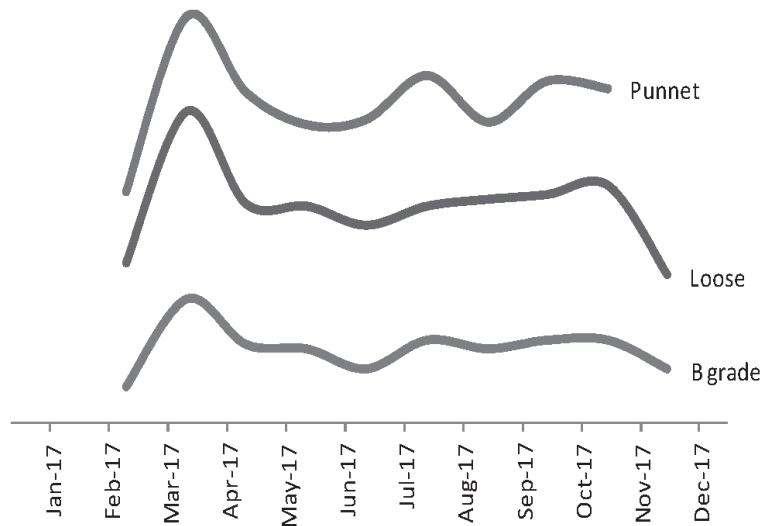


Fig. 12.3: Price (monthly average) of punnets, loose and B grade in different months by a commercial unit in 2017 in Azadpur mandi of Delhi (No sale in winter months due to decline in prices)



Notes

**INTEXT QUESTIONS 12.4**

State True or False

- (i) Cost of production in any system depends upon the efficiency of the system.
- (ii) Cost of cultivation of button mushroom is lower in seasonal cultivation than in commercial cultivation.
- (iii) Prices of button mushroom are lower in winter due to over production by seasonal growers.
- (iv) Mushrooms packed in punnets fetch better price.
- (v) About 5% of the mushrooms are B grade.

12.5 ON LINE TRAINING COURSES ON MUSHROOM PRODUCTION

There are many different institutes across the world that impart online training. Two are listed here: (i) ACS distance education and (ii) 'has'.

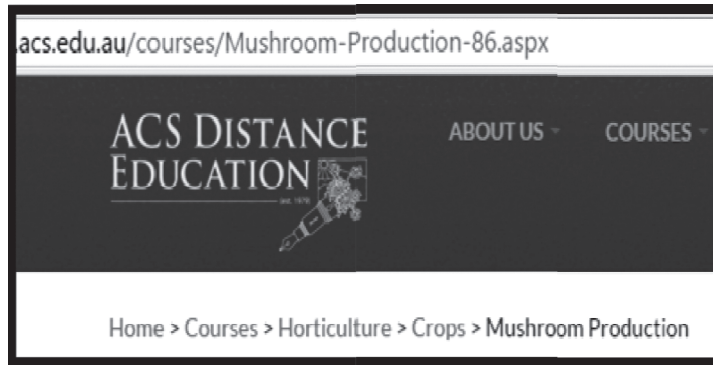
ACS in its 100 hour course, focuses on the most widely cultivated mushroom (i.e. *Agaricus*). If your interests are wider than this, all is not lost. This course does provide a valuable introduction to a much wider range of mushrooms; and can be used as a starting point for growing any of these as well. The school has excellent and rare resources relating to growing a wide range of edible fungi; and can help set students on the right course for growing species beyond just *Agaricus*.

Hogeschool (has) University offers online course, The e-learning course Mushrooms consists of 8 modules. You must first pass the test at the end of each module, before you can continue with the next module.

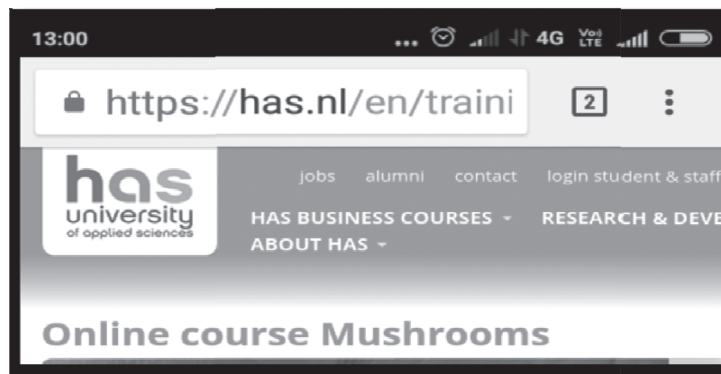
During the course you are able to put in your actually cultivation process by photos, graphs and figures. Together with the course teacher the cultivation will be analyzed for future improvements. At the end of the course you will have a clear view how to grow mushrooms, which processes are important for good results in yield and quality. You are able to determine, measuring and improving your cultivation outcomes and performance indicators.



Notes



<http://www.acs.edu.au/courses/Mushroom-Production-86.aspx>



<https://has.nl/en/training/online-course-mushrooms>

Some other courses are:

- <https://delphy.nl/en/training/online-course-mushrooms-spoc/>
- <https://www.careerlinecourses.com.au/horticulture/mushroom-production-online-course/>
- <https://www.kickstarter.com/projects/mycologos/mycologos-the-worlds-first-mycology-school>
- <http://www.gardendesignacademy.com/distancemushrooms.html>
- Certificate In Mushroom Production | Uttarakhand Open University
archive.uou.ac.in/programme/cmp10
- Six-monthly certificate course in mushroom production: The National Institute of Open Schooling (NIOS)
- <https://nios.ac.in/departmentsunits/vocational-education/one-year-courses.aspx>



Notes

**WHAT YOU HAVE LEARNT**

Let us recapitulate the important points we have learnt in this lesson:

- National Horticulture Mission (MIDH), National Horticulture Board, Ministry of food processing, NABARD, nearest KVK and Horticulture department may be visited for obtaining details of subsidy and finances.
- Cash Book, Inventory Record, Credit Record, Debtor Book and Labour Book are some of the essential books that should be maintained at the unit.
- That it is important to understand terms like amortization, IRR, DSCR, Depreciation, Payback period, Cost benefit ratio etc for understanding financial part of the project report.
- Cost of production is a function of biological efficiency and number of crops one may take in a year.
- Market prices of button mushroom are low in winter due to more production by seasonal growers. Mushrooms sold in punnets fetch better price.
- There are many on-line resources for obtaining trainings in addition to training in research organisations.

**TERMINAL EXERCISE**

1. What are the different agencies that provide subsidy for setting up a mushroom unit?
2. What do you understand by amortization, IRR, DSCR and cash flow?
3. Why prices of button mushroom are low in winter?
4. Why there is variation in cost of production of button mushroom in different commercial units?
5. What do you understand by amortization and depreciation?

**ANSWERS TO INTEXT QUESTIONS****12.1**

- (i) True (ii) True (iii) True



12.2

- (i) True (ii) True (iii) True (iv) True (v) True

12.3

- (i) True (ii) True (iii) True (iv) True

12.4

- (i) True (ii) True (iii) True (iv) True (v) True

SUGGESTED ACTIVITY

Encourage the students to learn about different websites. For example a standard report of button mushroom is available on www.nrcmushroom.org and that of Oyster mushroom is there on NABARD website.

Students may study different formats for taking loan and understand that:

- (i) The beneficiaries should have adequate experience/undergone training in mushroom cultivation imparted by the Directorate of Horticulture.
- (ii) The availability of high quality, infection free spawn from recognised source be ensured.
- (iii) Technical guidance/supervision from competent agency should be ensured.
- (iv) The implementing agencies should ensure that proper marketing arrangements are provided to the beneficiaries.

Key Learning Outcomes

- Prepare a business plan for small scale enterprise.