Various technical, economical and administrative problems of the sample government farms have been discussed in previous chapters. To overcome these problems, the following recommendations are given. If these recommendations are followed the efficiency of government farms could be increased many folds. These recommendations are dealt under the following four heads.

A. Technical
B. Economical
C. Financial
D. Administrative

A. TECHNICAL

1. Farm establishment:

From 1980-81, all government agricultural farms have been brought under district plan. Afterwards, the soil and crops have not been appropriately selected as per requirements and objectives of an agricultural farms in the newly established agricultural farms. The newly established farms are also lacking with a long term project plan consisting of technical, economical, financial and social analysis.

It is recommended that old agricultural farms should be reevaluated and establishment of new agril. farms may be takenup, after formulating a long term project plan for the farms.

2. Cropping pattern:

The cropping pattern has been limited to the extent of cultivated...
area, cropped area under different crops and varieties and the productivity targets. The productivity targets could not be achieved in most of the cases.

The agril. farms situated near by the city having usar soils being utilized for wheat cultivation either profitable/unprofitable, may be utilized for Berseem seed production for the simple reasoning of technical compitability and more profitability.

It is recommended that timely availability of agricultural inputs, the changing enter relationship between factors and crops due to changed cropping pattern, administrative and security aspects should also be taken care of at the time of formulation of cropping pattern.

The improved seed of gram and pea was purchased at higher rate from other states/agencies. Therefore, the area under wheat on agril. farms should be reduced and the area under gram and pea should be increased.

The break even point of gram and pea is very low and the low productivity of these crops may also lead to high profit.

If under certain circumstances a change is required in cropping pattern, decision should be taken up at the level of D.A.O. and may be communicated to the Director of Agriculture.

3. Productivity:

Out of studies agril. farms, the productivity of many crops have been found less than the average productivity level of the district. 41.17 per cent of agril. farms had less productivity level than the district productivity level in wheat, followed by 57.14 per cent in paddy, 75.00 per cent in gram, 60.00 per cent in pea and 100.00 per cent in mustard. The main constraints identified for low productivity were land management, irrigation and nutrients management, the short comings in the management of weeds and plant protection and unavailablity of money at opportune time leading to incompletion of different operations at
It is required that a team headed by J.D.A. (Extension) comprising Regional Deputy D.A. and Agril. Scientists from concerned university make an analysis of basic constraints of farms and chalkout extension strategy for each farm.

For the farms requiring higher investment and more risk for increasing productivity, the other alternatives may be worked out in place of crop production.

4. Cropping intensity:

The cropping intensity of farms is more than the districts, but the productivity of many crops is lower than the district and thus, the cropping intensity has no relation with the farms profit. Therefore, it should be analysed to find out the area after which the downfall in break even point in productivity of each crop starts. The area for the seed production should be fixed accordingly.

The productivity level of agril. farms should be increased to the level where marginal return is equal to the marginal cost and the productivity does not go below the break even point in any circumstances.

5. Irrigation percentage:

Generally, the area under irrigation at agril. farms is more than the district, but the productivity of many farms is lower than the district and the higher irrigation percentage at agril. farms has shown no relationship with the farm profit. It seems that non exploitation of irrigation potential is due to unavailability of money and resources for exploitation of irrigation potential. Lack of knowledge of using irrigation water and ignorance etc. may also be responsible for this situation. Therefore, the strategy for agril. farms may be chalkout for better utilization of irrigation potential.

6. Fertilizer Productivity:

Generally, the fertilizer consumption at agril. farms is higher to the
tune of 94.44 per cent as compared to district consumption but the productivity at many farms is lower than the districts.

To increase the efficiency of fertilizer, the following strategies may be followed.

1. The soil testing should compulsorily be done and application of fertilizer should be based on the results of soil test.

2. Micronutrients are important constituents of balanced fertilization. The shortage of excess micronutrients may affect the productivity. Therefore, analysis of micronutrients level should also be conducted at each farm.

3. Practicing wheat-paddy, rotation has led to a change in the soil structure resulting into bringing down fertilizer productivity. Therefore, to keep the physical structure of soil intact appropriate crop rotation, green manuring and application of other organic manures are essential.

4. The management and fertilizer productivity are directly correlated. Therefore, the recommended technology should be applied to upgrade the physical characteristics of the soil.

5. This is also a need to ensure that the quantity of fertilizers shown in the record is actually applied or not in the field. If the fertilizers have been used as per record, the time, method and the quality should be mentioned.

7. Labour utilization:

Generally, the labour used on the farm is higher than the standard laid down by Department of Agriculture.

It is required that the standard laid down in the record is followed strictly. The analysis of labour utilization on different aspects of crop production proves that the labourers have been used more than the standard laid down
in the field operations, like interculture, irrigation, harvesting and threshing.

Moreover, 9-10 labourers per hectare have been found to be used as watchmen which is all together in appropriate.

The standards for labour utilization are needed to be analysed in the department.

8. Labour efficiency:

The labour efficiency at agricultural farms was also evaluated and it was found that the labour efficiency on different farms for different crops came around 70.56 to 82.24 per cent.

Reduction in labour efficiency is mainly due to following reasons.

1. Late payment to labourers leads to unavailability of efficient labourers.

2. Most of the work is performed by labourers, who are older, female or children.

It is required that the standard of contract for operations like interculture, harvesting and threshing be fixed. The use of agril. implements for these operations for different time may be encouraged.

9. Labour productivity:

Labour productivity is directly related to labour efficiency and production technology being used. Therefore, to increase the labour productivity it is essential to train the labourers in the production technology being used on the farms.

B. ECONOMICS:

1. Cost of Cultivation:

It is required that the standard may be laid down for different components as done for the labourers. The cost of cultivation should be prepared every year on the basis of market rates for different situations and this should be
handed over to the each farm. This information will work as a guide for the farm superintedent.

2. Input-output ratio:

It is also essential that the cost of cultivation should be limited to the pre fix standards and the productivity should be kept above the break even point, which will lead to input-output ratio more than one.

3. Productivity/Break even point:

On an average paddy, wheat, gram, pea and mustard have break even point in form of seed as 17.07, 13.60, 3.70, 4.07 and 3.43 respectively, whereas the average productivity of these crops is 17.63, 18.41, 6.79, 8.12 and 3.80 quintals per hectare.

The above analysis makes it clear that the break even point of pulse crops like gram and pea is less than the paddy and wheat.

Considering the price rate of different crops, it can be calculated that gram and pea have break even point of 3.70 and 4.07 quintals per hectare. This level of productivity can easily be achieved on the general and pathari farms.

4. Cost of production:

This study concludes that cost of production of paddy, wheat, gram, pea and mustard is considerably less than the cost of seeds. If the productivity of all the crops is achieved upto break even point on agricultural farms, the seed production of all the crops will not be less.

The productivity of some crops on some farms have been found lesser than the break even point to the tune of 40 to 50 per cent. Thus, the low price of seed is not responsible for the losses achieved at the farms.
5. Chanas* (Undersized chicken feed):

Generally, the undersized chicken feed (Chanas) percentage has been found more than the required limit. The reason behind this is attributed to disorder in the equipment used for sorting out under sized grains, mal practices by workers, hotwinds at harvesting time and shortage of irrigation water.

The measures should be taken upto remove the disorders in the equipment used for sorting out grains and atleast 20 per cent of the harvesting should take place before the farm superintendent to check the chanas of any short comings. In addition to this standards laid down for chanas percentage should also be followed.

6. The additional loss due to chanas:

The department of agriculture has received an additional loss of Rs. 297179.33 from 18 agricultural farms due to higher chanas percentage.

Jt. Director of Agriculture (Extension) should inspect the regional processing plants under him and the shortcomings should be removed.

C. FINANCIAL:

1. All the agricultural farms are running under the district plan. According to financial availability, the annual budget for the farms tend to vary. It is essential to have a fixed minimum annual budget, according to requirements and an allocation should not be made less than that.

The annaul budget for agricultural farms is not prepared in district and it is not allocated farmwise, which causes ineffective evaluation as per programmes. The budget for each farm in a district should be prepared separately and it should be allocated to different farms separately.

The budget in general is allocated in 2 or 3 instalments which leads

*Term chanas have been used for the process may be followed in general to sort out under sized grains.
to untimely payment. It will be better if the budget is allocated in not more than 2 instalments in any circumstance.

2. The budget is generally allocated for rent, labour and supply of material. The budget does not include allocation for capital goods (Tubewell, buildings, agricultural implements etc.) leading to improper maintenance and finally putting them into bad condition.

It is required that the money for maintenance of capital goods should also be allocated in the annual budget of the farm as per requirement. Otherwise, the availability of operation factors looks would be reduced to a great extent any to also difficult to get money for new capital goods.

3. Any farm does not have the provision of imrests money.

It is required that an imrest money of Rs.1,000 should lie with a farm of 20 hectares capacity and sanctioning power of Rs.100 should also be given. The farms having more than 20 hectares area should have an imrest money of Rs.2000.00 and sanctioning power of Rs.200.00 Such farms with agricultural Universities are getting Rs.5,000.00 as an imrest money.

4. The payment of daily wages generally take 2-9 months of time. The payment of daily wages should not be delayed more than 2 months in any case. If payment is delayed, D.A.Os should be made responsible for this.

5. The balance sheet has been simplified in last year. Other such records also need to be simplified. For this a committee headed by Jt. Director Statistics may be consituated.

6. The agril. farms which are running in profit for last 5 years, should be supported by creating a revolving fund because every day's problems
lead to reduce the capacity of a farm in terms of production.

7. The farms which are running in loss for last 10 years and not coming up to the mark to fulfil the objectives despite of the efforts from the Department, should be reviewed by a special committee constituted for the purpose in order to recommend alternative use of these farms.

8. The farms running sometimes in loss and profit, their technical and economic programmes should specially be monitored. A 5 years plan for such farm should be prepared based on 5 years results. The farms having potentiality to fulfil objectives should be identified.

D. ADMINISTRATIVE:

A) Personal:

1. At each farm, one farm superintendent and 2-3 regular employees have been found according to area. This number is appropriate. At some farm (Kalai), the number of permanent labour was found more which should be transferred at the vacant places on other farms.

2. In the appointment and transfer of farm superintendent, the role of administrative and political pressure has been revealed. For this work, a committee headed by Director Agriculture, U.P. should be constituted. The members of this committee should be all J.D.A. (Extension), J.D.A. (Seed & Farms) and one representative of U.P.C.A.R. All J.D.A. (Extn.) should prepare a list of able, inefficient farm superintendent with the help of D.A.Os and Deputy Director (Extension). Based on the list made available, the committee headed by Director Agriculture should decide about the appointment and transfer of farm superintendent.

3. Keeping in view the introduction of new technologies in the field of agriculture, the minimum basic qualification for F.S. should be B.Sc.(Ag.) and they should be appointed in group II and must not have an age
of more than 50 years.

4. This has also been observed that the farm superintendents is appointed in their home districts or in the nearing districts to their home district and they do not reside on the farm. It will be effective if the farm superintendents are not appointed or transferred in their home administrative divisions.

5. The farm superintendents have been found lacking in the abilities of technical and economic analysis and farm management technology. The farm superintendents have not been given training in the area of farm management.

It is required that training programmes for farm superintendents should be organized with the help of agriculture departments and regional agriculture testing and demonstration stations.

b) Organization:

In U.P., the Govt. farms are characterized by more cropping intensity, irrigation, more application of fertilizer than the district standards and use of good quality, foundation and certified seeds of potential varieties but the productivity of these farms is lower than the productivity of the district. The establishment of Department of Agriculture was done with the objective of transfer of agriculture techniques to the farmers through agricultural farms, but if minutely observed, agricultural farms are most neglected in the Department of Agriculture.

Presently the J.D.A. (Seeds & Farms) is engaged in coordinating seed planning, seed distribution and seed supply, establishing linkage in state and interstate agencies related to seed and so many other activities like this which take most of his time and he does not find sufficient time to devote for agricultural farms. Thus, timely and proper evaluation and monitoring of agricultural farms
is handicapped.

Therefore, a post of Additional Director (Farms) may be created in the Department of Agriculture and he would be responsible for farm planning, evaluation and administration. Besides this, An Expert Committee headed by Director of Agriculture should be constituted and this team should have Deputy Director Agriculture and regional agril. farms and Agronomist, Soil Scientist and Agril. economist of Agriculture Universities as their members.

At district level, D.A.O. is a member of district planning and the farm budget is received from district plan. Therefore, the D.A.Os should be made responsible for the progress of the farms and his report should get special attention at state level.

The concerned D.D.A. of Testing and Demonstration Stations of the Regionl should be responsible to formulate cropping pattern and solution to technical problems for the whole division and the help/contribution made by him regarding this should be recorded in the yearly entries (Character role).

In the present situation, the utility of farm management officers' role is not revealed in managing and evaluating farms both in administrative and technical programmes. This responsibility may be efficiently borne by the D.D.A. Regional Testing and Demonstration Stations.

C. Monitoring:

1. There is no system of monitoring. Each J.D.A. may ensure evaluation and monitoring of the farms of his division which may be helpful in ending unplanned system of monitoring by number of officers in one month and no officers in other months.

2. To make the monitoring more effective, the standards may be laid out for all the inputs (except chanas and labour).

3. A check list should be prepared for monitoring and all the officers
should make remark on these points.

The check list may include following points:

i) Planning of crop and variety according to approved plan.

ii) List of responsibilities and delivery.

iii) List of weedicides and their method of application.

iv) Analysis of insect pest infestation during last year and their control.

v) Action taken on last monitoring report.


vii) Fertilizer utility, method and application.

viii) Availability of agricultural implements, maintenance and their uses.

ix) Analysis of different programmes as per standards laid down by Department of Agriculture (Labour, chanas and others).

x) Report on the aspect like untimely payment of daily wages, the equipment being out of orders. The possibilities of contract in agricultural operations and the reports on other important points.