

Session V
Paper (b)

INCENTIVES AND CONTRACTS

R.L. Peterson
Senior Forest Ranger
NZ Forest Service
Kaingaroa

INTRODUCTION

"A procedure designed to encourage a desired response from people or organisations".

This introduction which serves to act as a definition, when carefully considered, is very broad-based and covers a whole host of our activities. Man (in its broadest sense) is always looking for responses from other persons so we are all deeply involved in "Incentives" of one form or another. Incentives are therefore not just about bonuses, contracts etc.

If it is thought about a little further, the first step must be, something needs doing, somebody wants a task or service completed, it follows then that this desire has to be communicated, or you ask for a specific objective to be achieved. This then is not confined to just people on bonus or contract, but to all personnel in receipt of wages or salary.

From this it must follow that there are many different types of incentives. Some of the major divisions of incentives:

NON-FINANCIAL

DEFINITION

"Procedures which are non-financial in nature which encourage a desired response from people or organisations".

FORESTRY INDUSTRY EXAMPLES

Competitions	Uniforms
Entertainment	Office accommodation
Glide time	Training
Status	Management by Objectives
Hunting or Fishing rights	Goal setting.

FINANCIAL INCENTIVES

DEFINITION

An incentive which provides a financial reward related to the degree of success in achieving a desired objective. The most obvious of these is simply the payment of wages. Financial incentives open up a whole host of various schemes so the group is conveniently further divided.

INDIRECT INCENTIVES

DEFINITION

A financial incentive which provides a financial reward not specifically related to the worker's success in achieving a desired objective, eg. based on the results of other workers or on factors only partially within his control.

EXAMPLES -	Holidays	Cars
	Superannuation	Club fees
	Medical benefits	Selling company shares
	Housing	Total productivity index

These types are used within the forest industry but are not the most popular at the present time.

DIRECT INCENTIVES

DEFINITION

A financial incentive which provides a financial reward specifically related to the worker's own degree of success in achieving a desired objective.

EXAMPLES -	Merit payments	Bonus schemes
	Service payments	Contracts
	Profit sharing	Piece rates
	Penal rates	

These are by far the most popular within the Forest Industry and can be observed in many operations.

MORE COMMON TYPES OF INCENTIVES

Currently in favour within the Industry.

1. Wages
2. Goal setting
3. Bonus schemes
4. Contracts
5. Piece rates (loosing favour)
6. Total productivity index.

* 1. WAGES

In this day and age wages tend to be looked upon as a right of every individual, if not wages for a direct job then at least some payment in lieu of a job (dole). It is however still a basic motivation, if you work you get paid.

2. GOAL SETTING

Goal setting theory states that specific goals lead to higher performance than generalised goals such as "do your best"; hard goals, if accepted, lead to higher performance than easy goals; and praise, feedback, competition, money and participation have no impact on a person's behaviour unless they are used to set specific goals.

The theory has been tested extensively in the wood products industry in the southern United States. The results have included significant increases in productivity and significant decreases in costs. In practice all that is done is daily or weekly production goals are set by agreement between management and employees. A basic form of this technique is the old method of saying to a crew they can stop work or go home when they have completed "so many" trees or tonnes of logs.

In practice the steps used for goal setting are to assess the area and be worked, apply time standards, set a level of production and communicate this to the crew either daily or weekly, then follow up with discussions on what has been achieved.

It is obvious that normal targets are unlikely to be achieved on straight wages without some form of motivation be it money or just the luck of having a job in a difficult job market.

3. BONUS SCHEMES

A bonus scheme provides for:

- (a) The payment of wages according to the various award rates
- (b) The setting of a base production level, and
- (c) The payment of a bonus when this level is exceeded.

Under a bonus the production level (tonnes per day, etc.) becomes the variable which is re-assessed for each new set of conditions encountered. The target may vary from compartment to compartment, job to job, but the bonus payment rate remains constant for a given performance level and only improves where worker diligence and application increases.

A bonus target is established for each job, and a bonus payment over and above award rates is made when performance achieved exceeds the agreed start point.

Bonus payments increase as performance improves. An average skilled gang should maintain a performance ranging between 90 and 110 percent of target.

4. CONTRACTS

DEFINITION

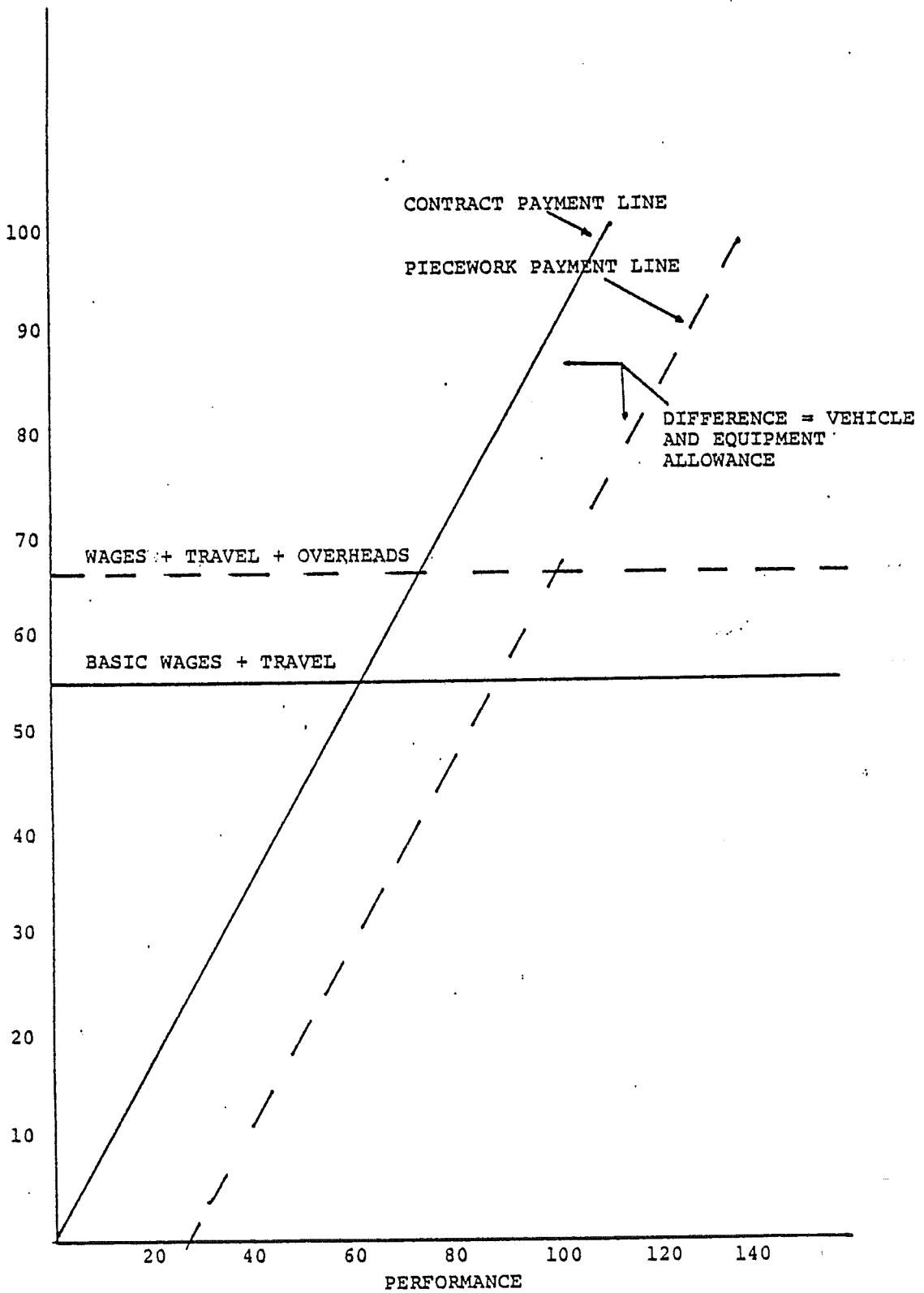
A contract is an agreement between two parties whereby one party agrees to complete a specified task for which he will be paid a specified sum by the other party.

One of the basic tenets of contract is that there is no limitation on earnings either up or down, you are quite free to make a fortune or go broke.

The other important characteristics of contract is that they work best with highly skilled personnel but tend to be a disaster with low skill levels. Performance has no effect on unit cost (it is a flat line) but has quite incredible effects on daily earnings.

4.1 Graph illustrating the effect performance has on daily contract earnings.

\$ DAILY EARNINGS



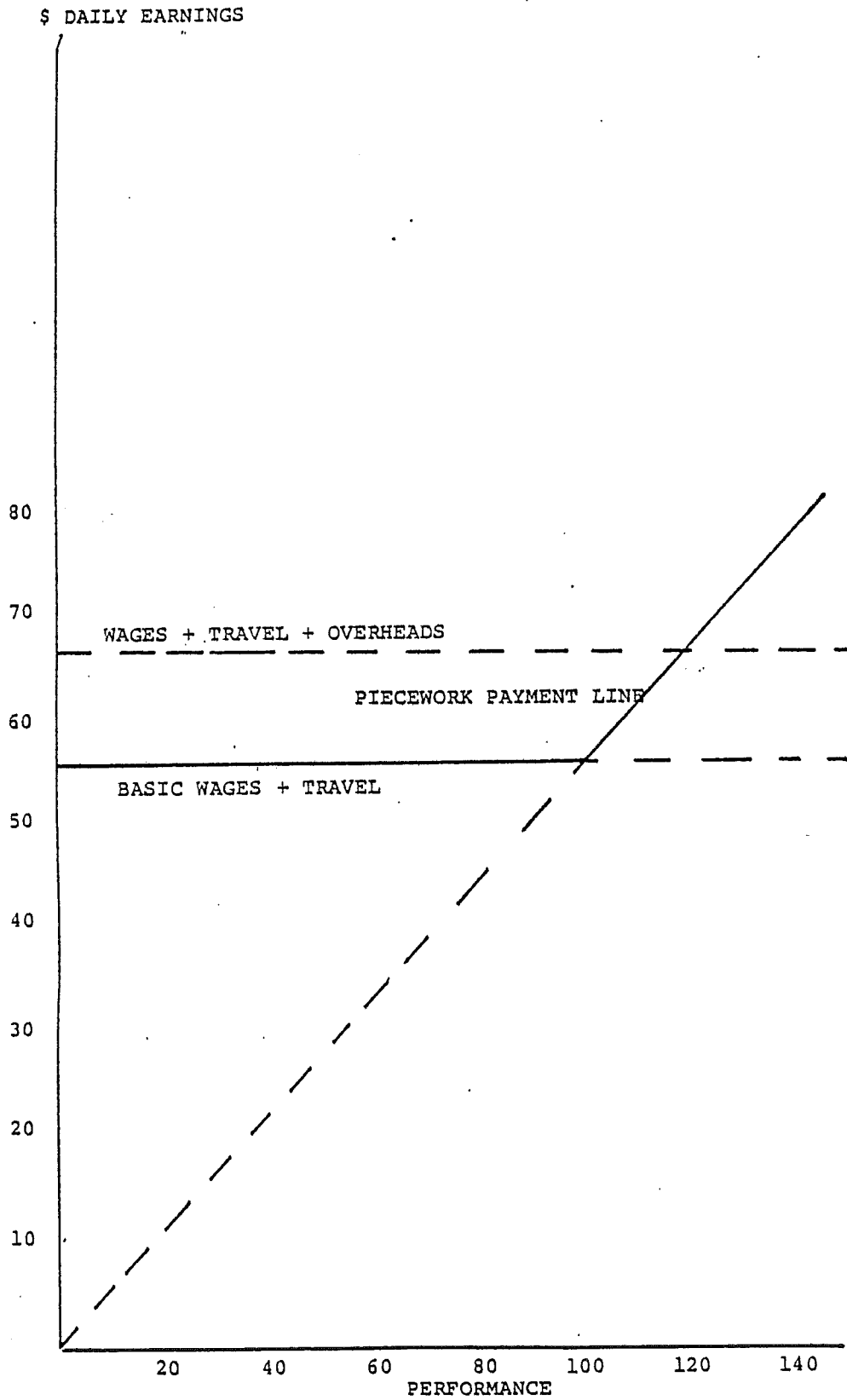
5. PIECE RATES OR PIECE WORK

DEFINITION

A payment by results scheme where the rewards are based on a constant and specified price per unit or piece produced, regardless of time taken.

Under a piece rate system a money value is set for each unit of production, ie. so much per tree or so much per tonne of wood. They are generally a contract for labour only with no provision for equipment. When the work content changes the rate per unit changes. Basic award hourly rates are guaranteed. Piece work is really a special form of contract used by unscrupulous employers, from the graph it can be seen that earnings are only better than wages where performance is above 100 percent. It is easy to understand then why the Unions insisted on a minimum payment of award rates. Holiday pay was always meant to be paid at award rates. The system is not used within the Forest Industry today to any great extent.

5.1 Graph illustrating the effect performance has on daily earning using piece work.



6. T.P.I. SCHEMES - OR TOTAL PRODUCTIVITY INDEX

DEFINITION

The total productivity index scheme is so designed that a proportion of any additional benefit obtained by the company from the introduction of the scheme is distributed amongst personnel.

In this scheme, management has accepted the principle that personnel participate in the benefits resulting from any increase in productivity compared to the given base period.

The additional benefit to the company is due to a reduction in unit costs, caused by:

- (a) greater production, which normally reduces the unit cost,
- (b) lower overall costs, which also normally reduce the unit cost.

For comparison all costs are compared with a base year and thus all costs are deflated to that base year, and production is also compared with the same base year.

Production and costs of base year establishes the base year unit cost.

Additional benefit to the company is the difference between base year unit cost and present day deflated unit cost. After the base year bonus rate is determined this is inflated back from base year values to present day values.

PROBLEMS FACING THE LOGGING INDUSTRY ARE:

1. Inflexible award rates.
2. Work in isolated areas.
3. Work in generally poor conditions compared with say general labouring or factory work.
4. A rapidly expanding work load with strict market demands.
5. In some areas heavy competition with outside industry paying above award rates, paying incentives, and giving the opportunity to work overtime.
6. In logging operation costly equipment not being fully utilised.

Incentive schemes correctly based and supervised can help solve many of these problems, and experience has shown that the following benefits can be expected.

- (a) Lower unit costs.
- (b) A stable labour force.
- (c) Completion of larger work programmes.
- (d) Development of team spirit among workmen.

- (e) Better planning.
- (f) Better machine utilisation.
- (g) Retention of wage differentials (piece rates and contracts are an exception).
- (h) Provision of a disciplined labour force for fire control or other essential work that is difficult to schedule (a weakness of the contract system when used to extreme).
- (i) A 'dampening' of inflationary trends in award rates.
- (j) Provision of detailed control data.

PRINCIPLES OF USING INCENTIVES

Some principles for the successful operation of all incentive schemes.

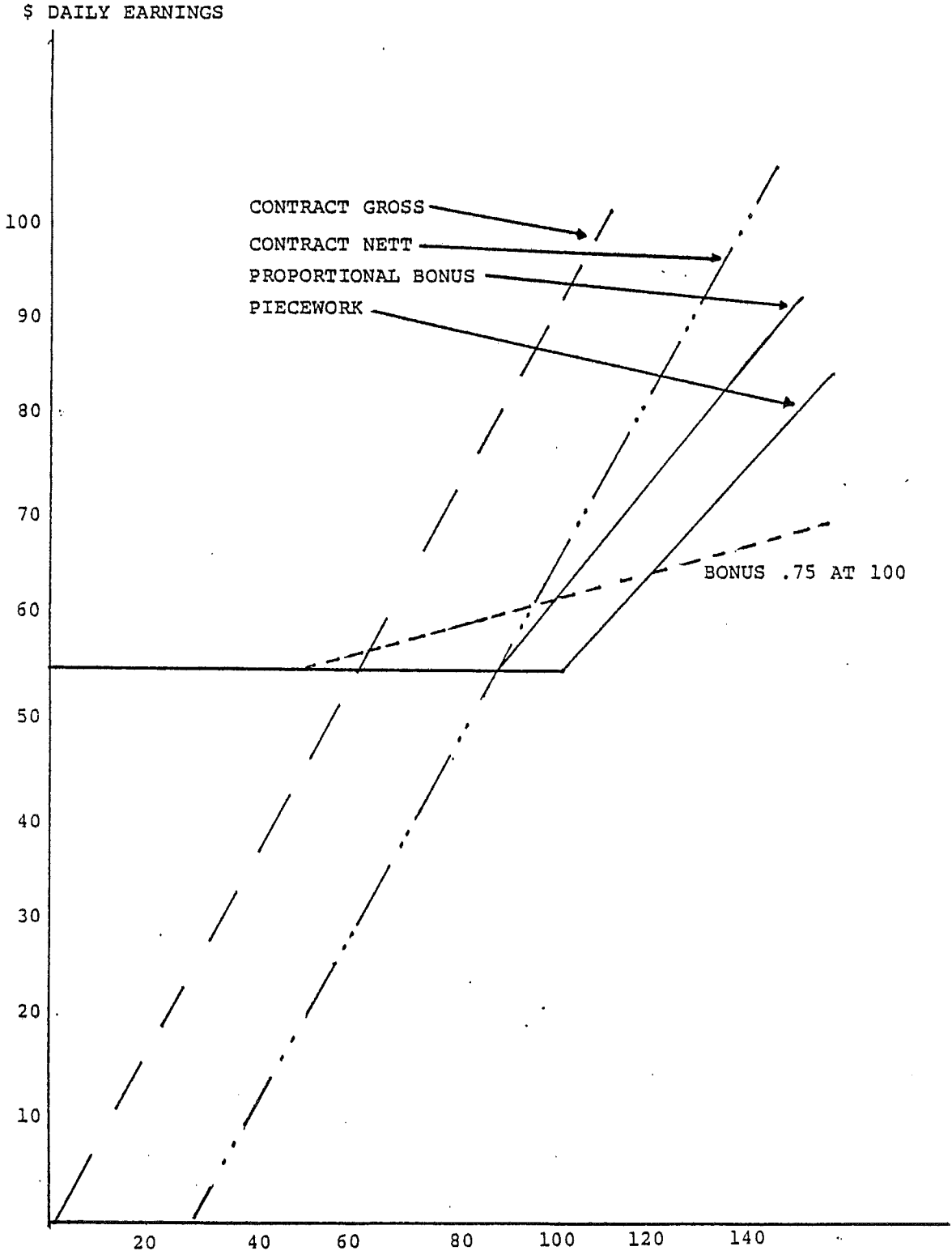
It is important for the success of any incentive scheme that the workers should know as quickly as possible the amount they have earned. Wherever possible this information should be made available the day after the one to which it refers. It may be shown in money units, as a percentage of the standard performance, or as the average number of standard minutes produced per hour. In these latter ways the figures can be posted on the notice board without workers actually seeing each others earnings. In many firms it is the practice for the shop clerk or foreman to tell each operator his performance, which enables him to raise any queries on the spot. Once workers get used to thinking in standard minutes, they generally know at the end of each day what they have earned and tend to regard the daily figures as confirmation.

The value of this practice to an incentive scheme is as follows:

- (a) The effect of the operator's own actions on his earnings is brought home to him while the events concerned are still fresh in his mind.
- (b) Any queries on the amount of bonus due can be taken up and corrections made, if necessary, before the wages are made up.
- (c) The posting of the figures daily on the notice board, where this has been agreed to by the workers and their representatives, adds an interest and may stimulate a competitive spirit.
- (d) Repeated confirmation of their own calculations by the management's figures or clear explanations where they differ, tend to increase the confidence of the workers in the fairness of the system. Conversely, repeated mistakes by the wages staff can rapidly undermine confidence.

It should be remembered that the principles outlined above refer not only to bonus but all forms of incentive.

To give some meaning to the various major financial schemes that have been mentioned, this graph demonstrates daily earnings for various performances. The level of earnings is not important but the interaction between various forms should be studied closely. The level of earning is also subject to quite rapid change caused by inflation.



WHEN SHOULD INCENTIVES BE USED?

1. Annual incentive schemes are no substitute for good management. They have a bad history in the industrial relations field and continue to be the centre of many industrial disputes.

It is certain that in many cases good supervision, plus flexible wage rates allowing margins for skill and merit, together with sound method study and setting of realistic work standards, can offer more than any incentive scheme (Goal Setting).

2. Nothing is to be gained by introducing bonus, piece rates or contract schemes where:
 - (i) Output and costs are satisfactory.
 - (ii) Production targets can be met with the labour available.
 - (iii) Labour turnover is reasonable.
 - (iv) Through flexible wage rates based on merit, employees can be rewarded fairly.
 - (v) Costly equipment is being fully utilised.

The extra administrative, measurement, supervision etc., costs and problems resulting from the introduction of incentives outweigh any advantage to be gained.

3. Incentives used indiscriminately can create more problems than they solve.
 - (i) If all workers are not on incentive it causes discontent.
 - (ii) Because unskilled or semi-skilled bush work is most easily put on incentive it erodes margins for skill because qualified tradesmen, plant operators etc., cannot be easily included in any scheme.
 - (iii) There is some loss in flexibility in the control of the work force once incentives are introduced, as men can only be directed to other work if average earnings are paid.
 - (iv) There must be some continuity of incentive and contract work if one of the aims of the incentive is to attract and keep good workers.
 - (v) To some extent (particularly under piece rates and contracts) incentive workers tend to assume control of an operation and dictate when and under what conditions they will work.
4. Incentive schemes are often seen by employers as an opportunity to pay their workforce what they consider to be a correct rate of pay. This is not their prerogative. Nor is it their prerogative to manipulate the scheme to compensate for factors such as unpleasant working conditions or isolation. Various wage fixing agencies exist for these purposes and it is my experience that manipulation of this type can only lead to the collapse of the scheme and defeat of the original purpose for which the scheme was introduced.

ADVANTAGES AND DISADVANTAGES OF INCENTIVES

1. All Incentives

(a) Advantages

- (i) Lower unit cost
- (ii) Labour force able to complete bigger work programme
- (iii) Supervision can devote more time to quality control
- (iv) More stable labour force
- (v) Gives workmen more interest and develops team spirit
- (iv) Improves planning and cost estimating
- (vii) Better machine utilisation.

(b) Disadvantages

- (i) Quality can suffer - high standard of supervision required
- (ii) Danger to health - rest period must be taken
- (iii) Safety practices can be bypassed and accidents increased
- (iv) Increase in clerical work
- (v) Abuse of equipment
- (vi) General problem of the slower worker.

2. Bonus Schemes

(a) Advantages

- (i) Wage differentials maintained
- (ii) Base set in terms of production and not money
- (iii) Changes in wage rates do not offset bonus target
- (iv) Incentive reward clearly shown
- (v) Earning line can be geared to restrict abnormally high earnings and made allowance for wide variations in areas etc.
- (vi) Cost fall with increasing production
- (vii) Provides a labour force should it be required for other work
- (viii) Supervisory effort can be converted into lower unit cost.

(b) Disadvantages

- (i) Sometimes difficult to understand
- (ii) Tend to develop into part of basic pay
- (iii) Generally schemes don't retain their effectiveness long
- (iv) Get used to compensate for factors such as unpleasant working conditions and isolation.

3. Contracts

(a) Advantages

- (i) Less capital investment by Forest Industry - plant, housing etc.
- (ii) Management can concentrate on quality control and planning - day to day time keeping etc., not required
- (iii) Provides an additional labour supply
- (iv) Unit costs are not effected by attendance
- (v) Provides excellent incentive for retaining skilled labour.

(b) Disadvantages

- (i) Less flexibility in labour control
- (ii) Lack of reliable contractors in some districts
- (iii) Demands high level of skill to be successful
- (iv) Supervisory effort can only increase the unit cost.

4. Piece Rates

(a) Advantages

- (i) Simple and easy to calculate.

(b) Disadvantages

- (i) Earnings can get out of hand if rates are not set accurately
- (ii) Lose sight of award rates
- (iii) Men tend to regard themselves as independent contractors
- (iv) Difficult to lower price
- (v) Wage differentials lost
- (vi) Wage rate changes require piece rate changes
- (vii) Minimum earning clauses written into awards.

5. T.P.I. Schemes

(a) Advantages

- (i) More people can be involved in scheme
- (ii) Savings in operating costs can be rewarded
- (iii) Schemes are not entirely production oriented
- (iv) Large amounts of staff involvement
- (v) Provides an alternative when other schemes are past the useful stage.

(b) Disadvantages

- (i) Difficult to understand
- (ii) Payments are not direct
- (iii) Payments can fluctuate outside the control of people concerned
- (iv) Overheads in operation are very high.

CONTROL OF INCENTIVE SCHEMES

In any financial incentive scheme, extra money is being spent, it therefore behoves the operators of such schemes to keep good records of the results. Any such system must have certain characteristics, it should:

1. Provide accurate and full information;
2. Ensure that all the necessary information is recorded as a matter of routine and transmitted with the minimum delay to the central office;
3. Be simple to understand and to operate and as nearly as possible foolproof, so that all the routine work can be carried on by comparatively unskilled clerical staff;
4. Be economical of staff;
5. Be economical of paper.

WHAT INFORMATION IS NEEDED TO RUN EFFECTIVE INCENTIVES

In using the work incentive in this situation, I infer the very broadest meaning of the word, all forms of incentives.

You need those things which go with good management:

1. Clearly defined objectives.
2. Good planning, well documented.
3. Good control systems for detecting errors and correcting them.
4. Good supervision to carry out management requirements.

Added to this incentives require:

1. Banks of standard times covering the operation in question.
2. Trained personnel to use and interpret the data.

3. Accurate mensuration data to indicate what is growing, its average size and range of sizes.
4. Accurate sets of topographical maps and aerial photographs to determine haul distance and the topographical variations.
5. These all combine into accurately set production levels in which management, contractor, bonus worker and wage workers have confidence.
6. No limits on production once any scheme has been started, quotas kill good production quicker than any other item.
7. Regular payments.
8. Problems quickly sorted out and retrospective payments for errors.
9. Challenges of prices or production levels quickly discussed and acted upon.
10. There must be even treatment in times of over or under production between the various producers.

For the future, if incentive schemes (once again in the broadest sense) are going to be successful and continue to provide not only increased production and reduced costs, but also very much improved take home pay for all concerned, then it is important that the industry continues to attract, retain, and train people with the skills to operate the logging equipment, be contractors, work for contractors and supervise and plan for all these activities.

