

Discussion.

streak disease. In Zululand during the last three years they had certainly had a great deal of drought. They had seen this streak in the leaf for some years but when they had a good season and a vigorous growth the streak practically disappeared. He had watched this for years and had had no conception that it was considered as a disease. He had looked upon it as an impoverished plant which could not get the necessary rainfall to bring forth the vigorous growth that was to be expected in a cane field.

Mr. Storey replied that there were many marks on cane leaves but there was only one type classed as streak disease. Those were the ones which no seasonal change affected. Throughout the two years he had been here he had kept certain plants under observation and there had been no change, and he thought there was ample confirmation from other planters that no change of soil or season affected the particular streaks to which he referred. Of course there were many other marks which simulate streak disease very closely.

NATIVE LABOUR SUPPLY AND SOME FACTORS ON WHICH ITS EFFICIENCY DEPENDS

(Paper by Dr. G. A. PARK - ROSS, Durban.)

Before proceeding to the subject matter of this address I wish to explain what I mean by labour efficiency.

I intend with one reservation to adopt the standpoint, of most of you, and to define the term "efficiency" applied to native labour as the set of conditions which gets work properly done at the lowest cost.

Costs must include not only wages, but all expenses for recruiting or otherwise procuring labour, for housing it, feeding it, supervising it, and caring for its health, and lastly it must embrace losses due to days not worked whether on account of sickness, disputes, or any other cause which can be classed as avoidable.

Within limits you can regard your labourer as a machine, costing so much, producing so much, but here my reservation comes in, you are not to reckon on depreciating him, that is discharging him from your service in a physical condition poorer than when he came to you.

Nothing has done more to prejudice the sugar industry in the recruiting areas than the spectacle of men returning broken down in health by work they should never have been allowed to undertake. I do not for one moment suggest that any of you in the industry at the present time ask any of your employes to do more work than a healthy man could easily do, but I invite you to consider what is the physical condition of some of the labourers you do employ, and are the conditions at your Estates those best suited to keep the healthy man in the pink of condition, and to prevent the weakling breaking down.

Your cane is your main source of revenue, your labour is by far your heaviest expense.

You exercise the utmost care in the selection and cultivation of your cane; have you ever considered if it would not be equally advantageous to give the same attention to the selection and care of your labour?

I suggest that many of you have never given anything like the same amount of thought to ways and means of effecting labour economies as you have given to the selection of manures for your farms, or even oil for your machinery.

Leaving the Indian out of the picture, you depend for your labour on two main classes, the local boy, usually a Zulu, and the recruited Native who comes on contract.

Of the two the local Zulu is physically an efficient man, and when he chooses can give the better day's work. He is used to local conditions, he has a fair vitamin reserve against scurvy, and as a result he stands unscientific feeding and bad housing for months without breaking down. He does not worry you much by turning ill on your hands. As soon as he feels unwell he departs for home. He works for no one if his home crops are good, and the hut tax not too pressing, and if his home is near your estate he absents himself to attend marriages, beer drinks, and faction fights, irrespective of any loss his absence may cause you.

These are some of the points for and against the local man. Most of you are driven to employ con-

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tract labour. Now there are many other people out for contract labour, and the pick of the boys goes to:—

- Those organisations who put up the most money.
- Those who offer the most attractive work.
- Those who put up the best working conditions as housing, feeding etc.
- Those who make the best arrangements for treatment of sick and for repatriation.

I believe that for a kraal boy the Sugar Estates present the most attractive work on offer in the Union. In every other respect, with exceptions on one or two Estates, the sugar industry is a bad loser to the Witwatersrand and to the Natal Coal Mines, and it remains to be seen what further effect the competition of the cotton industry is going to have on your contract supply. This much can be said, however, there is not enough recruited labour to go round: some one has to go short, some one is going to get the weeds. I suggest that you get most of the weeds now, and it is your own fault.

As to the general shortage, it is a national concern. It is up to every industry to do on a minimum of labour. Every sick or loafing boy on your estates is a waste not only of your money, but of State resources. Everything that you or I can do to limit laying off from sickness is of importance, and the enactment and enforcement of regulations to ensure the proper housing, feeding, medical attention, etc., of your labour need not be regarded by you as a device to put you to trouble and expense, but is designed to curtail wastage.

I know the inducements held out to you by recruiting agencies to accept unfit men, and I say here that if you will go fairly into the question for your own sakes and that of your shareholders, you will find it never paid any of you to accept such.

You should make it a condition that your employee passes a medical examination by a Medical Officer approved by and appointed by your association, and it would be quite easy to arrive at a standard of fitness for the guidance of medical officers. There is no reason why such medical examination should not be done in the recruiting area, but it should be conducted to suit your requirements and not the needs of the recruiter.

The medical test need not require a pass on the Mines standard if you are prepared to take the responsibilities entailed.

With good housing, exceptional feeding, and fairly light work many men unfit for the Rand Mines, even early silicosis cases, do quite well on the coast. Men with a scorbutic taint, and that is the main trouble with the Transkei labour, do quite well provided your rationing is anti-scorbutic, and you keep a strict control over all ailments and injuries however slight, and do not push your men too much at first.

But this class of labour is a worry and an anxiety.

It requires a health control not one of you ever give. You tell me that your finances forbid the exercise of the same amount of health supervision as obtains on the Mines, and yet you expect to employ economically a labourer who can never be kept fit without meticulous supervision.

My advice to you is to run your estates as estates, and cut out this invalid business by accepting nothing but labour passed fit after proper medical examination.

Before proceeding to other things I wish to invite your attention to a class of labour you have never exploited.

The last five years have witnessed a marked change in the Native outlook. Many Zulus of respectable type with wives to whom they are legally married either under Christian or heathen rites, are now leaving farms and locations for situations where they are assured of regular work at a remuneration which allows of some of the amenities of civilisation.

These Natives will not take their women folk to live in compounds and towns. The Witwatersrand does not cater satisfactorily for such people, the conditions there are practically urban. On the Natal coalfields, however, many mines lay themselves out to get them, and every manager who has got the right class speaks highly of them as the back bone of his native staff. On some mines you may be interested to know there is now no recruiting. It is unnecessary. The younger generation born and bred on the mine has already begun to do pit head jobs, and very soon we will see Natives at work who have been brought up as miners.

Natal requires a Native agricultural class bred to her industries. I recommend you to make a beginning now.

I have watched the development of a native working class on the Natal Mines for some years and would warn you here of two pitfalls.

You may think it would be a fine thing to get families of Natives from their kraals, give them the use of a little bit of ground, and let them live their kraal life on your Estates. Well even if you could bring yourselves to spare the land you will fail. It has been tried and has only had dubious success even where there was plenty of ground available. Control is difficult.

The class of man you should aim at is leaving the kraal life for good, and is not going to change his present surroundings for another beehive hut cheek by jowl with other beehive huts.

Get that beautiful economical thought out of your heads, and also this one which is sure to occur to you.

You say, well let the Native build his own place on my land. What sort of tenure are you going to give him, and what sort of place do you think he is going to erect never knowing from month to month whether he may be given notice and have to leave it. I have seen this tried too. The result is a collection of shanties and beer by the bucket. You can

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neither stop nor control it. Further, the disreputable element creeps in, and the good type of Native you are trying to get takes his wife out of it.

There is only one way to get the desirable native, and keep him. You have got to give him a self contained house, with a hard floor, adequate window space, and if you possibly can electric light. You can charge rent. You can build in ash concrete and thatch a two roomed house for less than £30, or a semi-detached house of two single rooms for two families for the same money (£15 a family).

The same house without a central partition can be used to house seven single Natives, and so certain am I that the married Native will ultimately prove to be the mainstay of whatever industry caters for him, that I no longer advise the compound type of the unit house used first for single men, and convertible to one or two-roomed houses as married replaces your recruited labour.

In starting up a labour colony of this class you need not worry about land. Mrs. Jim Fish, once she gets her foot on a hard floor, and has a window to open and shut, will never hoe a garden again, and her husband will have to work the year through to satisfy her demand for more and more attributes of civilisation.

He is finished as far as freedom goes, you have a permanent servant, and given the proper quarter you can pick and choose your men, and you have stabilised your labour supply, and are free of the recruiter or practically so.

It is almost entirely a housing question, and without the right thing in houses it will not come off. We have proved it up to the hilt on the Coal Mines. The managing director of one of the largest concerns there reckoned it out that it would pay him better in the long run to spend £32 on the housing of a married Native, than £6 on the housing of a recruited Native which is about what it costs to work to the regulations, and that after four years the financial advantage is with the married man. In estimating his value it is not only the saving of recruiting fees you have to reckon with. He certainly is healthier. Within limitations his work is steadier. I am collecting statistics from the mines on the subject, and as far as I have got at present, judging from the standpoint of days not worked on account of sickness and alleged sickness, (the latter to include lethargy after beer or gaiety), by far the best returns are given by married men of good class well housed and supervised, next by contract labour in compounds under strict administration and hospital control, next by heterogeneous collections of recruited Natives with female adherents, and worst of all comes the Native living under kraal conditions, unsupervised and perhaps far from his work.

Questions of rations, houses for your Natives, sanitation, medical supervision, and hospital treatment

all have direct bearings on the efficiency of your labour. Shortcomings affect recruiting in a marked degree.

Last year a deputation from the Transkei Native Parliament visited Natal to ascertain if all the unpleasant things they had heard about you were true. On the whole they were agreeably surprised, but they commented on the unevenness of the arrangements on different Estates. On some they are undeniably good, on others they are undeniably defective, and until things are evened up the industry as a whole will suffer.

Let me take these items in detail.

The Feeding of Your Labour.

It is a difficult thing to give an exact estimate of the amount of inefficiency which accrues from bad, or rather let me say unscientific feeding.

What keeps a man in life at his kraal is not in consequence an adequate diet on which to do a day's work on your Estates. You can keep a boiler warm on a few scraps of anything that will burn, but you cannot get a head of steam without proper fuel.

Without a properly constructed and balanced ration you head straight for ailments as indigestion and scurvy, and long before these obtrude themselves on your notice your Native is disinclined to work, and is a bad example to the rest.

The beginnings of scurvy or rather the development of the scorbutic taint is an insidious thing. Your Native is not feeling fit, he knocks up after a short period, even after three weeks work. Abrasions will not heal, a trifling bruise or scratch, which in a healthy man would heal over night, involves either cessation from work to let it heal, or continuance for a few days and a subsequent spell of hospital with attendant bill. But your main loss is the unfit period.

I went into this last year at some length, and I recommended an anti-scorbutic ration all round.

For your Transkei labour this ration is absolutely essential. For the Zulu it is advisable, and it costs no more than the unscientific and wasteful allowance of three pounds of mealie meal per diem which in the case of many of you forms the only ration supplied to your boys.

I recapitulate the items of this balanced ration hereunder:—

Mealie Meal, 24 ozs. daily, of which 18 ozs. is to be issued as porridge—balance as Marewu (approximately 1 gallon) and whole mealies.

Flour as required for Marewu.

Beans or peas, 3 ozs. daily.

Peanuts, 2 ozs. or ½ oz. ration oil daily.

Oranges, 1 daily, or alternately 1 pawpaw every second day.

Meat, fresh, 2 lbs. weekly, in one or two issues.

Vegetables, fresh (potatoes, marrow, squash, carrots, cabbage, tomatoes, sweet potatoes, pumpkin, onions as procurable) ½ lb. twice weekly.

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Salt in sufficient quantity.

My arguments justifying its institution are reprinted in the Congress Number of The Sugar Journal of last year.

I am glad to say that this ration has been largely adopted not only on Sugar estates, but elsewhere.

Housing.

You know our requirements. They are set out in Regulations promulgated under Government Notice 659 of 16th June, 1915.

For housing single labour on the coast the regulations can be satisfactorily and economically met by a dwelling of brick with pitch roof of iron, 30 sq. ft. floor space per boy, a 9 ft. wall, a hardened floor, and window space one-fourteenth of the floor space.

Adequate cross ventilation and coolness in our climate is best got by leaving the space between wall plate and roof open. This amounts to about 6 inches, and does not produce an undue draught. I prefer a tile roof in which case this space can be reduced. Doors should be stable pattern. Windows are best hinged at the bottom and arranged to swing out or in. Eaves should project 2 ft. and gutters are best dispensed with, and a cement channel run round the building to carry away rain water.

Inside it is necessary to run a rail for clothes and kit some 4 ft off the floor and 6 inches from the wall. This saves the latter being ruined by nails, and pays for itself over and over again.

The time is coming when sleeping on the floor will have to stop. I advise bed boards, of planks spaced $\frac{1}{4}$ inch, the board to be removable and set on a rail.

On the Rand concrete bunks in double tiers are in vogue. Our problem is quite different in Natal, and double tiers of bunks are not allowed. There is no objection to the Rand type of bunk in single tiers.

As to size of room I advise 14 to 15 feet. in depth, and accommodation for not more than 12 boys per room.

Sanitation.

This like housing is good on some estates, far from ideal on others, and totally lacking on many.

Taking it all round there has been a vast improvement during the last 14 years which is reflected in the improved general health of the labourer to-day.

The economic value of sanitation is difficult to bring home to you, but I have only to remind you how hookworm disappeared after a campaign of dosing followed up by the installation among the Indians of the crude spar latrine, my earliest attempt to devise a sanitary contrivance suitable to the coast.

You all know that the bowel diseases Typhoid, Paratyphoid, and Dysentery are carried by water and on the Estates mainly by flies which become infected from sterco.

Research conducted at the Government Laboratory, Durban, proved that the Native suffered much more than was supposed from this class of disease,

and further, that it certainly often occurred in such a mild form as to be unrecognised clinically. The bacteria of Typhoid may linger for years in the system of such Natives, and their excretions convey infection. **Latrines, therefore, are a necessity in the vicinity of barracks or any place where food is prepared and eaten.**

Latrines must be placed so that they cannot foul drinking water; they must afford no access to flies; they must be accessible to the quarters, not hidden and impossible to find in the dark and they must be kept clean and so constructed that they can be easily kept clean.

For most of you a pit latrine is the best and by far the cheapest, and I have devised a latrine top suited to the native posture which has been well tried out, is popular, and does not get fouled. Made in Durban it costs about 16/- per place free on rail. Put over a 10 ft. pit it will not fill for years. The bottom of the pit must not go down to the subsoil water.

This is the best latrine for out-lying barracks, and costs you about 1/- per head of the adult male population there. In many cases it is the best for your domestic servants who must have latrines if you are to be safe at your own homes.

For bucket latrines I have turned out a modified deck which limits fouling and which prevents access by flies, and is cheaper than the ordinary thing. These designs are on exhibit.

It would be a good thing for the industry if these matters were regularised. We have out-grown our old Natal regulations which deal with housing only leaving other matters untouched. I ask you to peruse the Labour Regulation published in the Government Gazette of 4th January, 1924 and applied to the Natal coal area, and to consider whether it would not be advisable to have something of the same for the Coast if not the identical regulations.

We have got there a complete and up-to-date scheme of control which caters for sanitation for married labour, hospitals, and everything else, and incidentally allows for far greater latitude as regards housing than our present ones.

In studying the requirements of these Regulations keep the unit type of house adaptable for married labour in your minds.

Epidemic Disease.

This will appear from time to time. Malaria is your worst bugbear. I commend for your perusal my recent address on the subject reprinted in "The S. A. Sugar Journal" and I hope that by adoption of the co-operative measures outlined we may at last get it under control.

Typhus Fever is often introduced and the disease has been known to spread on the Coast just as it does up-country. This disease is often unrecognised. There is a reliable blood test which should be used in all cases of doubt. You have only to keep your boys louse free and you need not fear it.

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Every new-comer, specially from the Transkei, should be made to wash himself and his effects with "Pumula" soap, and only when lice free allowed to take up his quarters among the other boys. It was proved on one of the mines in Natal that lice free boys hauled 3½ per cent more coal. They slept better—hence "Pumula" (rest).

Small-Pox.

I advocate every boy, coming to you through a recruiting agency, being vaccinated if he does not show marks or produce evidence of vaccination within the last 10 years. Nearly all the small-pox shown in the health reports as occurring in Natal is in imported boys.

Supervision and Hospital Treatment.

I hold that if a Native is not at work or absent he ought to be assumed to be ill whether his illness is real or not, and he should be under supervision, and if ill he should be under treatment until he again returns to work.

If you have provided yourselves with a good type of boy you should not have more than 1 to 1½ per cent of your natives idle on account of illness causing inability to work. I commend this figure to the attention of managers of concerns employing a large number of Natives, and particularly to their shareholders.

On one well run Government concern in Natal employing more Natives than any two of your largest companies the lay off is below .8 per cent. On none of your Estates is it ever computed. It ought to be, not only for the Estate as a whole, but for each section. You would then gain information as to the work value of various conditions of Natives, married and single, the effect of housing, of food; and lastly you would get an index of what your field overseers are about. You would in time be able to allocate your avoidable losses to their prime causes. This is a fine art on the mines which have just as little money to burn as you have, and if it pays them to go meticulously into labour wastage it will pay you.

I suggest the biggest loss of money on your Estates is due to your lack of supervision, and your failure to effectively combat disease in its earliest stages and this specially applies to large Estates.

Now on a small Estate if a native is not at work I take it he is usually seen to right away, and an effort made to fix him up. The bulk of the hospital cases are not from the small concerns.

On the big Estates this sort of domestic supervision neither exists nor is its exercise a feasible proposition. The visiting by a compounder of patients in barracks is not adequate treatment. Here again we do not want to send everything to a hospital, but disease is not, and never can be, treated in barracks, and I have known of natives being admitted to hospital who had been ailing for weeks in

barracks. If these Natives had been taken in hand at once the bulk would never have become hospital cases.

The only way to keep down hospital bills is to treat disease at once no matter how slight it may be.

You all keep a few simple remedies at outlying barracks and they should be available night and morning. The Sirdar is quite capable of issuing epsom salts or castor oil, and surgical dressings, some lint, gauze, carbolic oil and tinct. of iodine are a sine qua non.

On the mines these are now put in charge of boss boys, not white miners, but the latter are penalised for boys found with undressed abrasions. A boss boy likes putting a dressing on a native and a white man does not, and a native does not ask until the injury is "bad enough." The dressing of a wound at once even with carbolic oil will avert sepsis in about 80 per cent of cases. The bulk of the cases you pay hefty hospital bills for would have healed up in a day or two had they been promptly dressed on the spot and that could have been done had your field gangs carried with them an outfit weighing no more than 4 ozs. and a cost of less than 1/-. I say that attention to this point will cut your surgical hospital bills in half, but you must not forget the importance of the anti-scorbutic ration which also has a vital bearing on your hospital bill.

But now for the hospital itself.

I do not believe in maintaining hospitals to treat minor ailments.

You cannot treat illness under proper hospital conditions at less than 4/- to 5/- per diem, and then it requires a considerable number of cases to off-set the cost of staff which in the case of a small place is a proportionately very heavy item.

I reckon that given a good class of boy half per cent will require hospital treatment, and one per cent treatment in a Dressing Station or domestic treatment in the case of the small Estate.

In these estimates I am not allowing for any ailing boys to be left in barracks. If you go in for this luxury your figures are going to be much heavier.

I recommend the establishment of Dressing Stations by employers to serve single Estates or groups of Estates.

Such Dressing Stations must be under trained male nurses.

Must provide a hospital ration.

Should be visited regularly by the medical man.

Should take cases which can be expected to return to work in 7 to 10 days.

Must not attempt to cater for serious or operative cases under any circumstances, except in emergencies.

Are not to be considered as hospitals or substitutes for hospitals.

They can only be considered as clearing stations for the hospitals, and must cater for every boy not ill enough to be regarded as a hospital case.

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Many Estates have already established them but what I want to see is an organised system of Dressing Stations working in conjunction with an efficient hospital or hospitals.

I have placed the cost of working a hospital of some size at 4/- to 5/-. The cost of the Dressing Station should work out for a fair sized one at about 2/3d.

In estimating the advantages financial and otherwise of treatment in hospital and dressing station, the cost per patient day is not the all in all, it is the time it takes to cure the disease. I have seen men held in dressing stations for weeks. The same placed at once in a proper hospital would have been better in one third of the time.

In general anyone who is not likely to be back at work in 10 days should be sent to hospital. If there is a trained nurse in charge of the dressing station and an anti-scorbutic hospital diet available, then I see no reason why uncomplicated incipient scurvy cases, and convalescents from the hospitals should not be treated there.

I would like to see hospitals run for Natives, with staffs who are sympathetic to and understand

Natives. I deprecate the mixing up of ambulant trifles and serious cases in wards; in short, dressing station and hospital cases.

I hold that when a man, even a Native, is sent to hospital he should be assured of the treatment which can restore him to health in the shortest possible time and that is a matter of skilled medical attention and nursing, adequate equipment, and proper environment. It is your duty to provide such and it **does not exist at the present time.** I earnestly ask you to consider this hospital question; it is for you to make provision for your natives in terms of your contract.

The recruited native has no horror of proper hospitals and he as well as those of us who have to see he gets a fair deal are not satisfied with things as they are at present.

I am glad that we are to have a round table conference on this important matter and I ask you to help your representatives there by giving them an indication that you are ripe for a change and realise the necessity for better treatment for your natives than obtains at present.

DESIRABILITY OF ENCOURAGING A LOCAL LABOUR SUPPLY

(Paper by C. A. WHEELWRIGHT, Chief Native Commissioner for Natal.)

Dr. Park Ross has put the position clearly from the point of view of your own ultimate benefit. It may not be out of place for me, as the officer charged with safeguarding the interests of the Natives in Natal, to touch on a few of the points made, in the hope of impressing upon you how closely your welfare is bound up in that of your Native labour. It will be granted that the cheapest form of labour is that which returns the greatest profit to its employers from its use. The Gold Mines, some years ago, awoke to the full appreciation of the fact that a well fed Native produced considerably more work value than the cost of the extra rations. The efforts of the Mining Industry to-day are largely centred upon the reduction of the number of shifts lost. To this end they have introduced a strict medical inspection of all Native labour before its engagement, and close medical supervision during the course of employment, not only to detect cases of sickness, but also the many minor accidents which through neglect may lead to lost shifts.

Medical Care.—It is obvious that the close inspection and care given to Native labour by the mining

houses, are not altogether attributable to kindness of heart, but have their basis on economy. It may at first blush appear to be cheaper to allow sick or injured Natives either to go home, or to remain in their huts until they recover or die, rather than to have efficient and regular medical attention made available for them. If, however, you will take into account the unfavourable impression created not only among the labourers themselves, but in their home districts, and the probable effect of such impression in future years on your labour supply, and if in addition you will reckon the potential loss to you of the value of such Natives' work, I think you will agree that medical care is of distinct and direct benefit both to you and to the Native.

This care cannot be exercised unless it is combined with means for daily treatment, in the shape of dressing stations. These need not be of an elaborate type, but they certainly should contain a supply of medicines most in demand for the treatment of minor ailments, and a complete first-aid outfit to deal with minor accidents and injuries. There is