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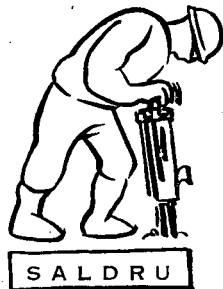
SALDRU FARM LABOUR CONFERENCE

SEPTEMBER 1976

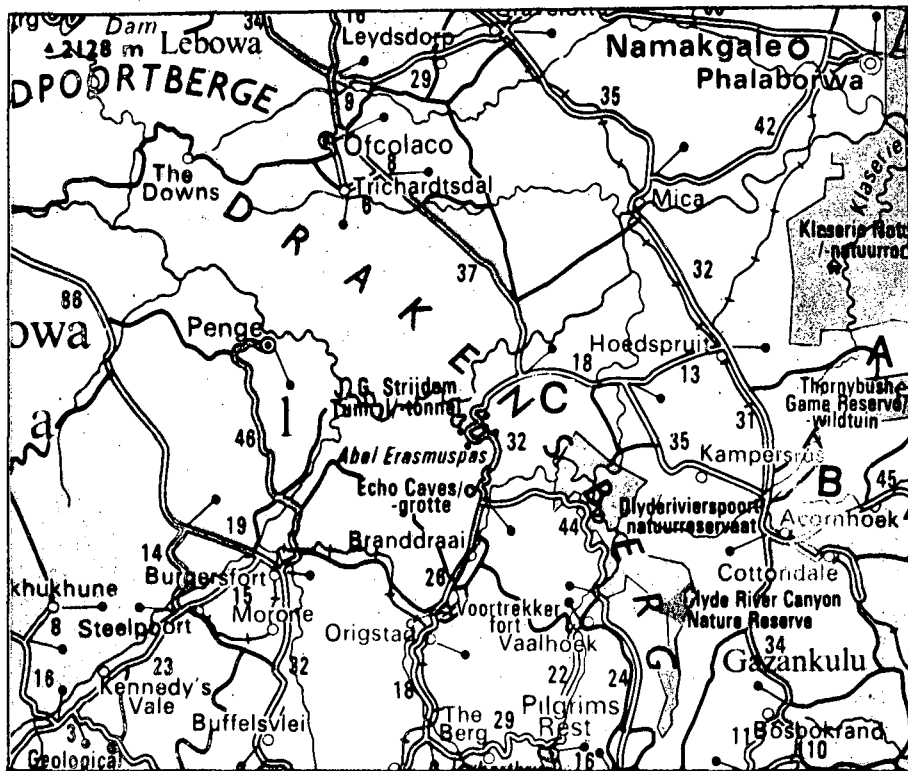
Paper No. 36

Farming in the Eastern Transvaal

Roger Godet



Preliminary Draft : No portion of this paper
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School of Economics, University of Cape Town.



The above section of the Pilgrims Rest district lies approximately 25° latitude south, at the foot of the Drakensberg escarpment. Parts of two homelands are shown, Lebowa to the west and Gazankulu to the east. The Kruger National Park runs along the entire eastern border.

The area belongs to the eastern Transvaal Lowveld ecological complex. A region of high summer temperatures, with moderate rainfall, and mild dry winters. It is mostly frost free, except for isolated low lying areas.

A case study has been conducted on three farms in the eastern Transvaal Lowveld, (hereafter called the Lowveld). It provides some detailed information about the character of these enterprises and the set of circumstances that determine their decisions with regard to labour.

The writer, in the course of his activities, has been acquainted with the citrus industry in many parts of the citrus growing world, and more particularly with the Transvaal Lowveld. He has, for many years, kept close contact, through his work, with the Subtropical Fruit Research

Station at Nelspruit, an institution whose contribution to the development of that region cannot be over-estimated.

Given a choice of subjects for participation in the Saldru conference, the writer has dealt with an area in which he has an active farming interest.

I N T R O D U C T I O N

A brief description of the environment may help to set the stage. The Lowveld has developed into a very important economic region where agriculture dominates. In the Republic it is known as the home of subtropical fruits, with citrus as the major crop but agricultural production extends to sugar cane, winter wheat, tobacco, vegetables, cotton, coffee, tea, nuts, forestry, beef cattle and... game.

The Kruger National Park attracts an increasing number of visitors each year and tourism is a valuable addition to the income of the region, as witnessed by the proliferation of hotels, motels and holiday resorts in the vicinity of the park gates.

In an area of erratic rainfall, distributed mainly over a short period - October to March, the amount of land available to the farming enterprise gives very little indication of its economic size. Even the amount of arable land is not always a measure of its potential. As far as crop production is concerned water availability and accessibility are the essential conditions. In other words, irrigation is the key factor to production.

The so called "bushveld" dry land provides grazing for cattle and game. However, the popularity of private game reserves and hunting lodges, for prestige and the entertainment of urbanites, has increased land values to the point where the production of beef is hardly an economic proposition.

This paper deals with a sample taken in one particular area of the Lowveld. It does not claim to represent a uniformity of conditions in the region. The Lowveld is a territory of widely diversified resources where output and income patterns can change markedly over comparatively short distances.

However, certain paradoxes are common to the region and indeed widespread. Structural rigidities in agriculture retain more people in the sector than would be predicted by any narrow calculations of revenue and expenditure. There also seems to be an atavistic tendency for the managers to be lavish about the number of labourers that they like to have around, without apparent regard to their full cost. This feature is perhaps a legacy of a past when labour was abundant at low wages.

In more recent times, which became significant in about the late '50s, competition from the other sectors has increased and put an upward pressure on reward which resulted in shortages of labour at prevailing wages.

The enterprises surveyed are labelled as :-

- Farm A - Family unit
Property rights : individual ownership
- Farm B - Medium size
Property rights : ownership by registered company
- Farm C - Estate
Property rights : ownership by registered company

DESCRIPTION

FARM A. Family enterprise managed by owner

District:	Pilgrims Rest
Temperatures:	Max: 46° Min: 7°
Summer Rainfall:	Average 500 mm per annum
Soils:	Light sands of sandy loams
Rail head:	Klaserie 22 kilometres
Labour supply:	Gazankulu 20 kilometres
Total area:	480 Hectares
Bushveld grazing:	350 "
Arable land:	80 " all irrigable (30 " are under overhead spray irrigation)
Water supply:	28.3 litres per second for a 12 hours day (1 cu sec) allocated by the Klaserie River Scheme

1 Dam in catchment area covering 17 hectares,
capacity not assessed.

Character of output and sources of revenue

Burley Tobacco

The entire crop is delivered to the Lowveld Tobak Koop at Nelspruit at prices and conditions determined each season.

The co-operative makes credit available at low interest rates and supplies most of the intermediate inputs. A technical field service is provided.

Tomatoes

By contract with a canning factory at Hoedspruit.

Cucurbits

Supply to municipal markets - atomistic competition.

Cattle

Sale of beef cattle - Afrikaner/Simenthaler crosses by private treaty is a minor contribution to revenue.

Almost any kind of agricultural production inevitably imposes some idleness of both capital and labour over the production period and complete idleness for the rest of the year. For this farmer, the main source of income is tobacco, a summer crop whose success depends heavily on careful handling, and is notoriously labour intensive. The production of winter vegetables is aimed at employing, as fully as technically possible, his personnel all the year round.

Capital overhead costs - (equipment)

- 2 Tobacco barns
- 1 Packshed for vegetables
- 2 Electric pumps
- 3 Tractors
- 8 Trailors
- 1 5 ton truck
- 1 light delivery van
- 1 2000 litres spray pump
- 2 Rotary power dusters
- Irrigation pipes (movable) & heads
- Earth-moving and filling implements

Intermediate inputs

Fuel and power supplies
Fertilizers
Pest control chemicals
Seeds
Maintenance

Costs, in terms of percentage of total expenditure are given in Table No. 1.

Labour force

	<u>Housed on the farm</u>		
	<u>Men</u>	<u>Women</u>	<u>Children under 16</u>
	8	20	7
	<u>Brought daily from Gazankulu</u>		
	5	20	-

Working hours per week: 50

Paid holidays: 2 days per month plus 2 days per year
(Christmas and Good Friday)

Labour costs

Cash

"Boss Boy" R80.00 per month
Men 75c " day
Women 60c " "
Children 40c " "

Benefits in Kind

	<u>Rations</u>	<u>Cost at farm prices</u>
Per head:	7 kilos mealie meal	R0.84 per week
	1 kilo meat	R0.50 per week
Per week	Vegetables in season	Not assessed - ad lib

Housing

Thatched roundavels - 2 per family

Schooling

Primary school 4 kilometres from farm gate
8 children of farm workers attend.

Medical Aid

Mission hospital at ACornhoek (Gazankulu) 20 kilometres - Farmer pays costs. Claims that recovery from Workmens Compensation is

so time-consuming and bureaucratic that he does not attempt it. +

Grazing

Tolerance: 2 goats per family

Aggregate labour costs are estimated at + 35% of total expenditure

See table No. 1.

Competition for Labour

from: The farming community - Klaserie
River irrigation scheme
ESCOM - Intallation of power lines
and electrification of railway
Phalabora/Kaap Muiden
P.W.D. - Road net work along the Kruger National Park
Native Recruiting Corporation (NRC) for Mine labour.

FARM B. Property rights : Registered company.

District: Pilgrims Rest
Temperatures: Max: 42° Min: 2°
Summer Rainfall: Average: 625mm per annum
Soils: Gravels and light sands
Rail head: Klaserie - 2 kilometres from packhouse
Labour supply: Lebowa (Homeland) villages on farm borders
Total area: 6 500 Hectares
Bushveld grazing: 6 000 "
Arable land: 500 "
Irrigable: 300 "
Water supply: 28,3 litres/sec. per 12 hour day
by gravity from the Mwarella (a tributary of the Klaserie)
28,3 litres/sec per 12 hours day
pumping from Klaserie river
1 Dam across the Mbesi river - capacity ± 2.5 mm³ ++
Management: 2 Section managers
1 Horticultural 1 cattle

Footnote:

+ All agricultural enterprises comply with the Workmen's Compensation Act of 1941.

The employer pays R1.35 per R100 computed income for all employees. This includes salary or wage, value of rations, cost of housing and all other allowances.

++ Approx. 2 000 acre feet

Character of Output of Sources of Revenue

Citrus

The enterprise is a member of the South African Citrus Exchange and has no control over the sale of its production.

After the initial quality test fruit is selected according to size and appearance, into export, local markets and factory grades.

Instructions for the packing of export fruits are issued by the S.A. Citrus Exchange according to the marketing conditions prevailing in the export markets and the grower's picking estimates - periodically revised. Net returns are distributed to the exporters on the basis of varieties and time pools.

Supply of fruit to the domestic market (including factories) is strictly controlled by the Citrus Exchange and prices determined by the Exchange each season.

Only the sales of export fruit are profitable. The returns on local and factory fruit do not cover the costs of production. Prices realised in export markets are normally 3 to 4 times higher than on the domestic market.

Subtropical fruits (mangoes and litchies)

Supplied to municipal markets at uncontrolled prices. The enterprise is a price taker.

Beef Cattle

Sold by auction at local cattle yard.

Capital overhead costs - (equipment)

- 1 Packhouse
- 2 Workshops
- 2 Offices
- 4 Stores
- 4 Tractors
- 6 Trailers
- 1 10 ton truck
- 2 Light deliverie Vans
- 1 Landrover
- 3 High pressure spray pumps
- 2 Low " " "
- 2 Power dusters
- 2 Pumping Stations
- Earth moving and cultivating implements
- Ladders and picking equipment
- 4 Dwelling Houses

Intermediate inputs

Fertilizers
Pest control materials
Packing " "
Fuel and power supplies
Maintenance

Costs, in terms of percentage total expenditure are given in Table No. 2.

Labour Force:

Permanent - Horticultural section

1 "Boss Boy"	6 Rangers (overseers)	
Group 1	Men over 60	28
2	" 30	15
3	Men under 30	10
4	Women " 30	30

Labour turnover - per annum

Group 1	Stable
2	50%
3	80%
4	50%

Work hours: per week: 50 Paid Holidays: Christmas and Good Friday

Seasonal - Duration of Season \pm 130 work days

Women under 30 90

Children " 16 (males) 15

Labour Costs

Cash

Permanents

"Boss Boy"	R60.00 per month
"Rangers"	R30/R50 " "
Group 1	55c per day
2	75c per day
3	75c per day
4	60c per day

Seasonals

Task rate	Women	60c. per day
Time rate	Children	40c. per day

For fruit pickers and packers (all women) a minimum task of

40 bags (for pickers) and 40 cartons (for packers) applies. Over and above the task rate, a piece rate incentive of 1 cent per bag and/or per carton is paid. Only 20% of the workers qualify for the piece rate.

Benefits in Kind

Rations for all hands

			Cost at Farm Prices
(1)	Mealie Meal	- 1 kilo per day	R1.54 per week
(2)	Dried beans	- 80 grams " "	"
(3)	Dehydrated vegetables	- 60 " " "	"
(4)	Meat (game)	- 1 kilo (twice a month)	Not assessed
(5)	Fruit (in season)	- ad lib	"

Housing

One half of the permanent labour force is housed in conventional thatched huts along water supplies (distribution dams) within the farm boundaries.

Schooling

The enterprise has built a school on the property (one classroom and one dwelling house) three kilometres from the farm's office. One teacher and one assistant teacher have been seconded by the Department of Education.

Tuition : Standard 1 and 2

84 children (ages 7 to 14) attend (2 shifts)

All children belong to families working on white farms within a radius of 10 kilometres.

18 children from farm B attend.

School grounds are leased at no cost.

Building costs are to be partly reimbursed to the enterprise.

Medical Aid

Mission hospital at Acornhoek (Gazankulu) 8 kilometres from base.

Enterprise pays treatment costs.

Cattle Section

Herd Population (Afrikaner crosses) 12 to 1400 heads

Labour Force

1 Bossboy
24 Cowhands

Labour Costs

Cash

"Bossboy" R45 per month
Cowhand R30 per month

Benefits in Kind

Rations - the same as Horticultural section - game meat weekly

Housing

All personnel are housed in conventional thatched huts near dams or spray races.

Cattle grazing

8 Heads allowed per family
Dip fees, veterinary supplies and A.I. at cost

White employment - 3 men

Orchards manager and assistant
Cattle manager

Salaries: R350 to R500 per month

Side Benefits: Free housing, light, heating, vegetables from farm garden, fruit in season.

Servant allowance: R15 per month + 50 kilos mealie meal

Pension scheme (contributory)

Competition for labour

The same as for Farm A.

FARM C. Property Rights - Registered Company

District: Pilgrims Rest
Temperatures: Max. 48°C Min. 1°C
Summer Rainfall: Average: 580 mm per annum
Soils: Sandy loams
Railhead: Hoedspruit : 28 kilometres
Labour Supply: from villages in Lebowa 30 kilometres from base
Total Area: 1400 Hectares

Cleared: 400 Hectares all irrigable
Under Orchards: 264 "
Water Supply: Pumping from Clifants river (unlimited) actual intake 255
Management: by Company Chairman litres/sec. +

Character of output and sources of revenue

Citrus

A member of the Citrus Exchange, operating under the same scheme as Farm B.

This is one of the rare cases of vertical integration where a processing plant operates side by side with the packhouse. The factory is run as a separate company and its output includes citrus juices and concentrates, tomato pastes, canned peaches and guava juice. All basic inputs except citrus are supplied by the region's farmers. Citrus is processed by arrangement with the S.A. Citrus exchange.

Capital overhead costs - (equipment)

Citrus Packhouse
6 Stores
2 workshops
1 Pumping Station
10 Tractors
12 Trailers
1 Bulldozer
5 ten ton trucks
6 light delivery vans
7 High volume spray pumps
3 Power dusters
Irrigation equipment (microjet)
Earth moving and cultivation implements
8 Houses for white labour
5 Single quarters for white labour
Club House
Bowling greens
Tennis Courts

Intermediate inputs

Fertilizers
Pest Control materials
Packing materials
Fuel and power supplies
Maintenance

Costs, in terms of percentage total expenditure are given in Table No. 3.

Labour Force

	<u>Permanent</u>	<u>Seasonal</u>
Men over 35	40	-
Women under 25	130	230
Children under 16	30	-
Duration of Season:	140 days	
Work hours:	47 per week	
Paid holidays for permanent workers:	5 days per annum.	

Labour Costs

Cash

A system of rate for the job for permanent workers

Men:	R0.75 to R1.30 per day
Women:	40c to 60 per day
Children:	25c to 35 per day

Seasonal workers

Basic wage of R6 for 15 days presence
plus $\frac{1}{2}$ cent per bag/carton picked/packed
Average picked/packed: 50 per day.

Benefits in Kind

Rations: for all hands

A food pack is issued every week:

Weight :	7 kilos
Contents :	Mealie meal, beans, samp, sugar salt, tea.
Cost to the firm:	R1.08

Housing

Housing in traditional thatched huts is provided for 25 families

The balance of the permanent labour force plus the seasonal force is transported daily from and to Lebowa.

White employment - 8 Men

Accountant - Engineer - Packhouse manager - Orchardists

Salary ranges:	R450 to R550 per month
Side Benefits:	Free house, light, heating, fruit, milk, vegetables

Pension scheme
Medical Aid Scheme
Sporting facilities

Competition for labour

Demand for labour in this area - where mobility is low - is mostly from farming enterprises along the Olifants river.

TABLE 1

Labour Costs: As a% of total expenditure

Case	<u>A</u>	<u>B</u>	<u>C</u>
	35	38,7	22,8

No attempt has been made to include the opportunity cost of the farmer's own labour in case A. The difference between B and C is not so easily explained.

The area in which C operates is known to be, traditionally, one of low labour incomes and wage drifts. C's wage rates as well as the cost of rations are lower than B's. This alone could not account for the difference in aggregate labour costs.

One is tempted to seek an explanation through capital substitution and more advanced technology. The following points are worthy of note :

- (1) C possesses a well designed irrigation system, where earth furrows have been eliminated. It is in the process of being improved by the capital intensive micro jet techniques. This is an important labour saving factor.
- (2) Automatic and semi automatic sprayers are used in the application of insecticides and fungicides. Compared with the hand-gun technique, this results in a saving of labour if in an increased amount of pest control materials.
- (3) Herbicides are relied upon for weed control and reduce the need for labour intensive - and often ineffective - hand cultivation.

The high percentage expenditure on pest control materials shown by C (table 2) is a reflection of (2) and (3).

With all that, the low labour costs shown by C. are still questionable. The figure revealed by several citrus estates in the Transvaal - where capitalisation and state of technology are comparable to that of C is \pm 40% of total expenditure.

TABLE 2

Costs The Main factors of intermediate inputs as % total expenditure.

Case	A	B	C
Fertilizer	14	5,7	4,4
Packing materials	-	15,6	15,7
Pest Control	6	7,8	15
Transport	8	1,8	4,2
Fuel and Power	10	3,3	6,2
Maintenance	6	4,7	7,6
Seeds	4	-	-

Figures for A are approximate and were given in good faith. Figures for B are accurate as reflected in the last balance sheet. Figures for C are accepted as reliable.

TABLE NO. 3.

Native Recruiting Corporation (N.R.C.)

Wages offered to mine workers as on June 1st, 1976.

	<u>Per Shift</u>	<u>Per 48 hours week</u>
Step 1.	R 2,50	R15,00
2	2,65	15,90
3	3,00	18,00
4	3,40	20,40
5	3,90	23,40
6	4,95	29,75
7	5,00	30,00
8	6,15	36,90

Minimum pay for surface job : R1.55 per shift

(The above schedule is posted at the N.R.C.'s office at Bushbuckridge - Lebowa)

It would be difficult to establish a comparison between the numerous "steps" for miners and the rates for the job of agricultural workers. According to the N.R.C.'s chief recruiting officer, the area of responsibility entrusted to Step 8 could be matched by that of the ubiquitous and indispensable agricultural "bossboy" - whose money wage is seldom more than 80c. per month.

At the other end of the scale, the minimum pay for a surface job is R1.55 per shift. The conventional daily wage for the agricultural worker is 75 cents.

TABLE NO. 4

A comparison of monthly money wages for men in agricultural and alternative employments - Pilgrims Rest district.

	<u>Agricultural</u>	<u>Alternative Employment</u>
Unspecified	R20,	R60,
Tractor drivers	R35, unlicenced	R100, Licenced
Truck drivers	R40, "	R120, "

This information was not obtained directly from employers but on oral evidence from contact with workers and farmers and corroborated by access to credit accounts opened with trading stores.

Alternative employment for able-bodied men is available in the district at the Phalabora mining/industrial complex, at Escom electrification projects and at the Public Works Dept road building and maintenance.

COMMENTARY

The remarkable prosperity of the region under survey is a consequence of the "green revolution" that has taken place in the Lowveld, like in many other parts of the agricultural world, since the end of World War II.

The "revolution" has been brought about by a series of innovations that have altered the relative productivity of resources and generated new economies of scale. It has provided the incentives that have changed the resource-mix employed.

Generally, greater productivity results from improvements in chemical, mechanical and biological technology. It is almost inevitable that such

improvements increase the productivity of capital and alter the rate of substitution of capital for manpower. The effects are in the direction of increased capital and decreased use of manpower.

The innovations have generated substantial economies of scale which have tended to increase the average size of the farming enterprise and also have drawn about all the remaining small enterprises into co-operative ventures. Innovations that often call for large investments in highly specialized equipment and marginal cost reductions can only be justified if output is increased and marginal costs reduced.

However, technical progress is not homogeneous and certain phases of plant production remain labour intensive. For example, there has been little change in the technique of fruit picking, although transport and packing now use less labour and more capital per unit of output than ten years ago. But with increased output the greater volume of produce still calls for more personnel. The phases of fruit production remain very largely seasonal and seasonal demand for additional labour has been met by drawing on part-time employees.

In the categories of the permanently employed, there exists a chronic shortage of male labour at the rates of pay that prevail in most areas. Men belonging to an age group that normally enjoys a certain degree of mobility are not being attracted by agricultural jobs. This explains why males under 30 are only sporadically found on the farm. The reason becomes fairly obvious when one is aware of the wage gap between agricultural and other employment alternatives. Tables 3 and 4 give an idea of the magnitude of money wage differences.

Where new techniques have reduced the need for muscle power, middle aged and elderly men, who lack other employment opportunities, have provided a more stable group to the farming enterprise.

But the increased demand for seasonal labour is met almost entirely by black women. The tendency to incorporate black women in rural employment is not new, and the so-called "maids" have gradually been called to perform certain tasks traditionally discharged by black men and others performed by white women. Until the late '50s all citrus packhouses were staffed by white girls who were recruited in both rural and urban areas and housed in hostels on citrus estates and farms for the duration of the season. Industrialisation, increased family incomes and standards of living dried up this source of labour. The change to black women was operated

smoothly and effectively over a couple of seasons.

Until recently, fruit picking was a job for young men, perhaps because it was thought that they were safer and more skilful in the use of ladders. All picking is now done by women.

Securing an adequate supply of this type of labour illustrates some unusual characteristics. The provision of transport is the essential condition for its availability. Transport must be assured from the place of abode to the place of work and back again every day. Travelling comfort matters but little, and the rough ride in trucks and trailers seems to be looked upon as an entertainment rather than a deterrent. Housing on the farm's premises, when available, is not readily taken up. The daily commuting is preferred. The quality of rations, and the free issues of fruits and vegetables are important factors in the choice of employment.

Only a moderate interest is shown by these women in bonus incentives. Obviously these incentives were designed to improve productivity and at least partly succeeded, since they are maintained. It may be noted - as in the case of B - that the bonus award is less than the task rate average, which is perhaps not the best way to increase marginal output. Rightly or wrongly, and although they express themselves in different terms, farmers are rather doctrinal about the merits of the backward sloping labour supply curve.

CONCLUSION

The disparity between money wages of agricultural labour and those prevailing in alternative employment has been underlined. In actual income, the gap may not be as wide as it looks because rations distributed to farm workers, besides keeping their value in real terms, have increased quantitatively and qualitatively during this decade. But in the process of general wage increases, the difference in absolute terms has been magnified. One of the consequences of this situation has been the transfer of the most vigorous group of agricultural workers to other sectors.

Farming enterprises have responded by adopting labour-saving types of innovations. In agriculture, climatic and ecological conditions leave little choice in the timing of operations and expenditure on capital equipment is often looked upon as an insurance premium when the enterprise is threatened with a labour supply problem.

Innovations - not necessarily all labour-saving - have resulted in greater outputs and generated a demand for more part time personnel. This demand has been met by calling on female labour and an increasing number of black women have been drawn into the market economy. The composition of farm labour has been markedly altered, but in an area bordering two homelands the adjustments do not seem to have had major disruptive effects on farming operations.