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# POST-DEREGULATION STRATEGIES FOR MILK PRODUCERS IN SOUTH AFRICA

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## ABSTRACT

*The transition from a rigid and controlled marketing system in the dairy industry in South Africa was, and still is, a painful experience for dairy producers. Factors such as the liberalisation of the international market, as well as the regulation of certain inputs and imports, contribute to this situation. At present it is fair to say that on producer level the dairy industry has been deregulated, but that inputs are still highly regulated and that concentration exists. In this article different strategies for milk producers in South Africa such as information, balancing buying power and organised groups are discussed.*

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Competent execution of a well-conceived strategy is not only a proven recipe for organisational success, but also the best test of managerial excellence.

Thompson and Strickland (1998)

## INTRODUCTION

The dairy industry is probably one of the most complex agricultural sub-sectors in South Africa. Not only is this a very specialised industry, but the



dairy industry also involves a structure with high capital investments, intensive managerial inputs and sensitive input/output price ratios. It is therefore no wonder that the deregulation process domestically, and liberalisation internationally, are sensitive to milk producers. Given the aforementioned, the objective of this paper is first to provide an overview of liberalisation and deregulation, and then to suggest strategies to milk producers in order to face the challenges of the new millennium.

### **LIBERALISATION AND GLOBAL DAIRY MARKETS**

Although the share of agricultural products that are traded internationally is low compared to that of industrial products, trade growth in agricultural products has increased more than the total growth in agricultural production over the last years (Hansen, 1997). According to Griffin (1998a), global trade in dairy products should remain approximately 7 per cent of world production (excluding European Union (EU) intra-trade). The low proportion of dairy products entering world trade is a reflection of factors such as high perishability, preferences for fresh produce and high levels of protectionism, despite the World Trade Organisation (WTO). However, Steenkamp (1998) expects that high levels of protectionism in the form of export subsidies, producer support and non-tariff barriers will be addressed during the next round of WTO negotiations, and that protectionism will have to be lowered by the EU and other major exporting countries. Agenda 2000 is already an indication that the EU can not uphold its present system of support, but the question will remain to what extent the EU will remove trade distortive measures in the long run.

A shift in the relative importance of different regions in world dairy exports is foreseen, with the proportion supplied by New Zealand and Australia increasing in favour of those originating in Europe. This is due to the low cost of milk production in Oceania in contrast with limits on production in Europe, and an expected decrease in subsidised exports. New Zealand is the second largest trader of dairy products, being surpassed only by the EU, but unlike the EU, without any direct subsidies.

Despite deregulation in the dairy industry in New Zealand, the New Zealand



Dairy Board (NZDB) has a monopoly on the export of dairy products. In 1998 the New Zealand government called for each of the agricultural marketing boards, including the NZDB, to give up their monopolies on exports. Producers were totally opposed to that. At this stage, the dairy co-operatives in New Zealand are merging to achieve economies of scale and are preparing to market internationally on their own.

All exporters – and in particular those that do not subsidise their exports – had to move from bulk products (skimmed milk powder, butter etc.) towards value-added products (cheese, specialised milk powders, etc.) which are focussing more closely on consumer needs. Quality or uniqueness is thus becoming more and more important in the global village. On the other hand, consumers are also many and varied. In the dairy market of the future some will demand low-priced products, while others will pay a premium for quality and uniqueness.

#### **DEREGULATION IN SOUTH AFRICA**

As in most other countries, agricultural marketing in South Africa were controlled by a number of marketing boards with almost unlimited powers. These marketing boards were producer-controlled, with the Minister of Agriculture as the final decision-maker. Market intervention was achieved by various schemes. The Marketing Act for Agricultural Products (Act 47 of 1996) came into effect in 1996, which decreed that all the marketing boards had to be liquidated by 6 January 1997.

The process of deregulation in South Africa was, however, not structured in such a way that all industries were deregulated at the same time. Although deregulation took place for some inputs, the price of certain inputs like diesel is still highly regulated. For example, more than 50 per cent of the fuel price consists of different government taxes. Regulation in the labour market is another example. Despite unemployment in South Africa, adjustments to labour legislation with minimum wages, a quota system, etc. were recently proposed.

On the retail side, co-operatives are transforming into companies. This



situation changes the game significantly. Where the objective of a co-operative was to support the producer and lobby for better prices, a company has the sole objective of profit maximisation. This necessarily implies that producers no longer pay a lobbied price for inputs, but the normal unlobbied prices.

### **Deregulation in the Dairy Industry**

According to Jooste (1997) the dairy industry in South Africa took a leading role with deregulation when consumer price control on fresh milk was abolished in 1983. The Dairy Board and the dairy-marketing scheme were phased out at the end of 1993. The Milk Board (a statutory board with listed functions) and the Milk Producers' Organisation (MPO) were established in 1994 to fill the gaps left by the Dairy Board. In 1994 milk producers decided that they preferred a free market system with no market intervention resulting in producer prices being determined by market factors. In 1997 the Milk Board dissolved and merged into the MPO, following a decision by milk producers that the MPO should handle the essential functions like research, information, milk recording, progeny testing, tariff negotiations and prevention of illegal imports. These functions are funded by a voluntary levy from more than 70 per cent producers, producing more than 90 per cent of total milk. Figure 1 gives a summary of the gradual deregulation of the dairy industry.

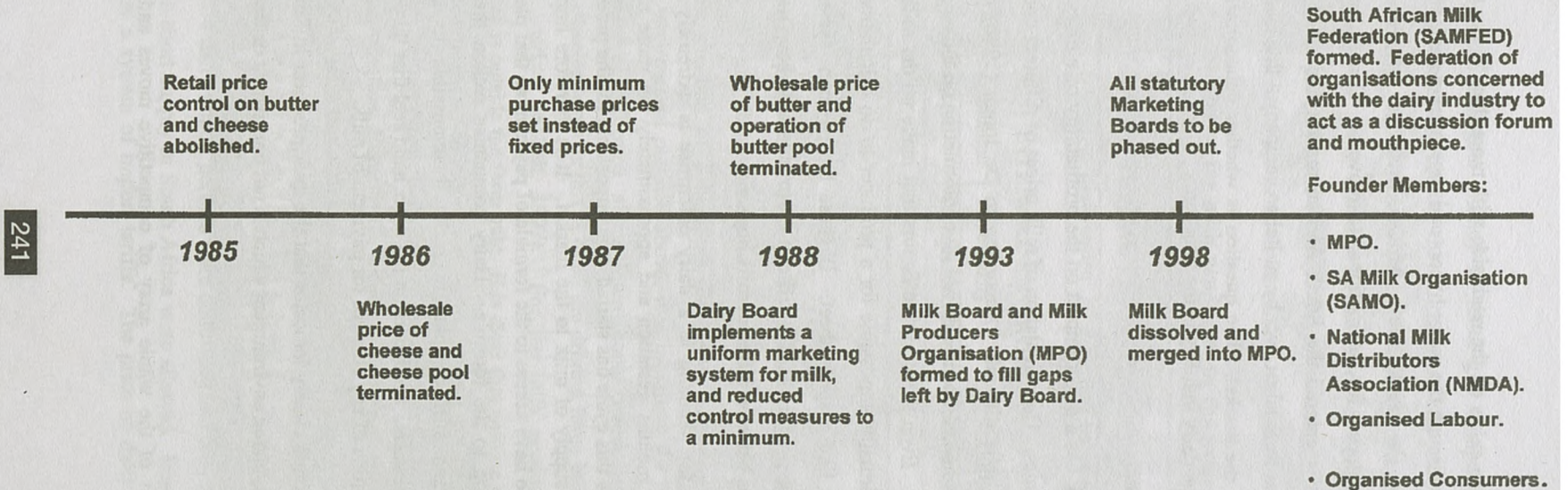
### **Concentration**

Producer numbers declined from a level of over 23 000 at the end of the 1970's (Dairy Board, 1993) to the current number of 5 797 (MPO, 1999). The reasons for the decline in producer numbers were mainly economical. From 1994 to 1997 the number of milk buyers rose from 215 to 349 and producer-distributors from 366 to 522 (MPO, 1999). Although the number of milk buyers rose considerably, there was still market concentration on the buyers side with more than 77 per cent milk being bought by only five major buyers.



**Figure 1: The dairy industry has been deregulated gradually over a 14 year period**

### **Progress in SA Dairy Industry Deregulation**



***Deregulation is disruptive but will force the SA dairy industry to become internationally competitive.***



Concentration also exists on the retail side with more than 50 per cent of the total trade going through the major hyper- and supermarket chains (Hermann, 1996). Due to the weak South African exchange rate, a favourable environment developed for international take-overs. Consequently multi-national companies entered the South African market and since 1996 two major milk buyers were taken over by an Italian company – this led to further concentration in the market. The question is whether concentration of this kind is best for the dairy industry in the long run.

#### **Payment for milk**

Payment for milk has a direct impact on the profitability of a dairy enterprise and dairy companies. The calculation of milk prices of different companies in South Africa is quite difficult. According to De Jongh (1998) one of the problems is that some companies do not give information on the calculation of their milk prices. Even when all the factors that make up the milk price are available, it is virtually impossible for a producer to do calculations without the help of aids like a spreadsheet. Because the payment systems of the companies change irregularly, it is difficult for producers to keep track and do price comparisons between different milk buyers.

The time frame for planning in a dairy enterprise is extremely important because of nine months gestation and approximately ten more months for production. Once this cycle has started, it is impossible for the producer to do much about the supply of milk to the market. It is therefore important for dairy producers to have access to the formula of payment so that planning can be done according to the formula. Dairy companies reckon that the free market system and stiff competition make it impossible to give price indications to producers. Producers on the other hand feel that they should be informed well in time of any changes for payment of milk.

The above-mentioned clearly indicates that the milk producer in South Africa operates in a deregulated environment which is not transparent or free.

#### **STRATEGIES**

Strategies consist of the whole array of competitive moves and business



approaches that managers employ in running a company. In crafting a strategy, management is saying that *"among all the paths and actions we could have chosen, we have decided to go in this direction and rely upon these particular ways of doing business"* (Thompson & Strickland, 1998). A strategy is both proactive and reactive. Possible strategies to be followed by milk producers in the dynamic environment are shown in Table 1.

**Table 1: Strategies for milk producers in the external and internal environment**

EXTERNAL ENVIRONMENT		
Imports	Information	Balancing buying power
INTERNAL ENVIRONMENT		
Farm management information	Value-adding	Use of new technologies
Managing production cost	Capital management	Use of experts
Price cost squeeze	Organised groups	

#### EXTERNAL ENVIRONMENT

With the development of a strategy, the external environment consists of all the conditions and forces that affect the strategic options and defines the competitive situation of a business (Pearce & Robinson, 1997). In the economic environment outlined above, it is important for milk producers to keep themselves informed about international trade issues and macro-economic developments as this is often the driving force behind international trade and markets (Schuh, 1997). For the milk producer, the external environment is outside the farm gate. It is clear that nothing producers do will change the external environment and the impact that the external environment has on them. However, milk producers can collectively have an affect via a producer organisation. Some of the successes of the past and proposals for the future are outlined in this section.

#### Imports

Prior to 1994 dairy import permits were controlled and only imports to supply products in short supply in South Africa were allowed. Import permits were replaced by a system of import tariffs. The price of dairy products on the

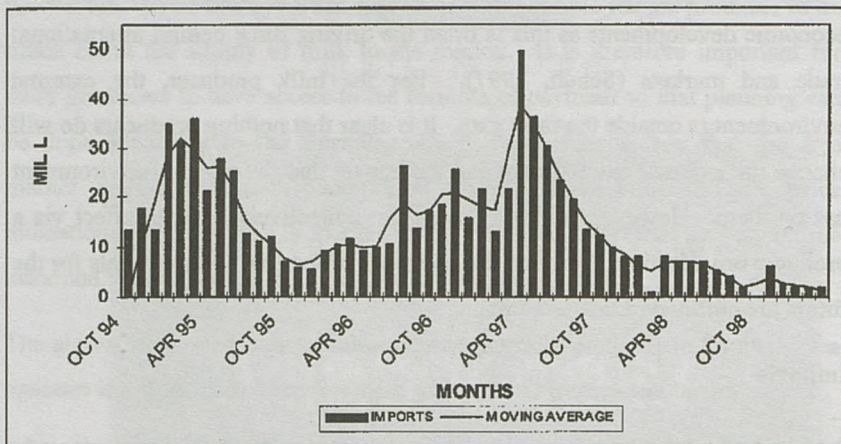


world market, the exchange rate, import tariffs, etc. determine whether it is more profitable for a buyer to import than to use local products.

With its very long coastline and several points of entry, South Africa is geographically well suited for the illegal importation of products. The dairy sector is especially vulnerable to illegal imports of highly subsidised products. Milk producers realised the danger of illegal imports, and therefore initiated an inspectorate during 1995. When the Milk Board closed down, milk producers realised that the function of the inspectorate should carry on. The inspectorate (Agri-inspec) has been transformed into an Article 21 company, which is owned by the MPO. This company now also delivers services to other agricultural industries (Hanekom, 1998).

There were significant successes in combating illegal imports, and a revised import tariff structure for dairy products came into effect in January 1998. Inspections and the tariff structure closed some of the loopholes and this were regarded as a more efficient system against imports of dairy products (Coetzee, 1998). Figure 2 clearly illustrates the decline in imports. Rodgers (1997) has estimated that the excise income lost through ineffective border control on all produce, is enough to lower the personal income tax rate of taxpayers to a maximum of 30 per cent. The maximum at this stage is 43 per cent.

**Figure 2: Montly imports of dairy products (ME basis 1994 – 1998)**



Source: Customs and Excise statistics compiled by the MPO (1999).



## Information

Information is essential in a free market system. One of the tasks of a producer organisation should be the collection and distribution of information to its members. One such organisation is the MPO, which can play an important role with regard to information dissemination in South Africa. A project of monitoring producer prices on a monthly basis was, for example, initiated and it is envisaged that this project will in time expand to a full-fledged milk price league table such as being operated in the United Kingdom (*Dairy Farmer*, 1998).

Even when information is available to members of the MPO, it can be risky and difficult for a producer to move from one milk buyer to another. This is mainly because of practical reasons such as regional monopolies and distances from buyers. Even though it can be difficult for producers to move between buyers, this information should be published and the payment system for milk should be transparent. The dissemination of information from the MPO to its members is currently done mainly through their magazine, *The Dairy Mail* and via meetings. Although this is valuable, the process is slow and expensive. Although there is practical problems with telephone lines, technology such as Internet and distribution lists should also be used to distribute information more efficiently to members or groups of members.

### Balancing buying power

With concentration on the buyers' side, one of the options to balance the powers between buyers and producers is a futures market. A futures market for dairy products and even for fresh milk in the form of the Basic Formula Price (BFP -future) exists in the United States of America. Futures markets tend to balance market factors by increasing the number of buyers in the market. A futures market also generates future price indications for producers and buyers.

## INTERNAL ENVIRONMENT (FARM STRATEGIES)

As outlined above, a producer can do nothing to affect macro-economic variables that have an impact on him/her on farm level. The producer can,



however, implement different strategies at farm level to address the challenges of the new marketing environment to achieve objectives like survival, growth and profitability. Efficiency became the buzzword in South African milk production. Unless a producer is efficient, the deregulated market will certainly drain and replace him. Strategies to enhance efficiency are discussed in this section.

### **Farm management information**

In single product enterprises, the cost of production can be compared directly to the price of the product. A joint product enterprise (like a dairy) is one in which two or more products are produced. The costs associated with the production of each, is difficult to determine (Frank, 1996 and 1998). In many cases, dairy and crop production is not the only enterprises on the farm, with the result that the situation becomes even more complicated.

Although the allocation of costs is more difficult in such circumstances, it is not an excuse for incomplete or no farm management information. Only when the gross value of production and direct allocated variable cost is available, it is possible to work out effective farm management strategies.

### **Managing production cost**

To manage production cost, principles of production economics should be applied where thinking is in terms of income and cost, and not only in terms of production. There is a big difference between input applications for maximum production and that for maximum profit. The cost of feeding makes out the highest percentage of cost in a dairy enterprise, therefore feeding is used as an example to manage production cost.

According to Jones (1996) profitability changes as milk price and cost of feeding vary, with the result that adjustments to feeding should be evaluated. Each cow has her own production function, which indicates the relationship between various quantities of a specific output (milk) and a specific input (feed), while all other inputs and conditions remain constant. Although it is



difficult to determine the production function of each cow or group of uniform cows (for example when grazing or on a full feed ration), it is possible to determine the output by means of milk produced. Because feeding influences production, a prediction on production response is required. With this information, it is possible to calculate the profitability of the proposed change. Only when this is available, it is possible to manage the process so that only "profitable cows" are milked.

Despite the above-mentioned production economic principles, there is a number of other considerations for feeding that should be evaluated. This is, for example, own production of raw materials *versus* buying, and own mixed concentrates *versus* buying of concentrates. When producers mix feeds, despite the correct formulation, price hedging of raw feed materials (especially maize) is important to spread risk.

Competitive advantages exist amongst farms and also between regions. The past production arena allowed certain inefficiencies which lead to a situation where milk is produced where the resources does not allow it. Only if milk production is profitable in the medium term, it is possible to survive financially. If this is not the case, producers should leave the industry, otherwise the structural change caused by deregulation will make them leave the industry painfully.

### **Value-adding**

According to Kohls and Uhl (1990) the portion of the consumer's money that goes to food marketing firms is referred to as the marketing margin. This is the difference between what the consumer pays and what the producer receives. There are widely held misconceptions about the food-marketing margin, which is well documented. A great deal of the marketing margin is cost and not profit. This principle is explained in Table 2 and components of the marketing margin are outlined.



**Table 2: Analysis of US \$ spend in 1996 on food eaten at home and away from home**

Component	% of Total
Farm value	23,0
Marketing margin	77,0
Labour	38,0
Packaging	8,0
Intercity transportation	4,5
Depreciation	3,5
Advertising	3,5
Fuels and electricity	3,5
Before-tax profits	4,0
Rent	3,5
Interest	3,5
Repairs	2,0
Business taxes	3,5
Other costs <sup>1</sup>	1,5

<sup>1</sup> Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts and miscellaneous items.

Source: United States Department of Agriculture (1998).

After deregulation in South Africa, milk can more easily be sold directly or processed into cheese, yoghurt, ice cream, etc. When profitability is under pressure, producers inevitably (or may be desperately) think of value-adding on farm level. The profit of the middleman, as well as the profit of the producer, is motivational for this process. Many higher value products derive a significant part of their value from their uniqueness. Such products can demand a premium in the market place and promotion of these products present opportunities to increase value (Griffin, 1998). Although there are many opportunities with value adding on farm level, there are also many problems like personnel, the economic climate, competition and seasonality of raw materials. These problems cause that not all producers that began with value-adding on farm level in the dairy industry in South Africa were successful (Cronje, Potgieter & Van Schalkwyk, 1997).

### **Capital management**

Managing capital is a difficult task as it is a dynamic process involving numerous variables with objectives that are interrelated and in many cases competing. Investing capital in a dairy can have a significant impact on the long-term financial position of that business. Judgement on the financial position and decisions such as borrowing capital or allowing investors to



contribute, should be made (Jones, 1998). The cost of capital in South Africa is high with a current rate of 19 per cent, after it dropped from a maximum of 25,5 per cent during the last few months. With interest rates like this, a high risk of borrowing capital is present.

One of the practices to acquire more resources with limited capital is leasing. Leasing arrangements can be beneficial because it increase the size of the business without making large, long-term investments (Jones, 1996). Although rent of land is common in South Africa, rent of dairy cows is not a common practise even though the same benefits can be realised. Operators and owners have conflicting financial goals when it comes to negotiating the rent that an operator must pay to gain the use of dairy cows. Rent is not the only issue that needs to be addressed. It is important that both parties identify all the questions that may arise and spell out remedies in a written lease agreement that is signed by both the owner and operator.

Other practices to acquire more resources with limited capital are share-crop leasing, leasing of farm implements and sharing resources like tractors and implements among producers in a group.

### **Organised groups**

With concentration in the industry, one of the strategies for producers is to organise themselves into informal and formal structures like buying and marketing groups, farmer forums and small co-operatives. These structures can lobby for higher output prices and lower input prices, or can facilitate a process where producers form their own processing plants and develop their own niche markets. This is a way in which producers can collectively counter the exploitation imposed by concentration in the market.

### **Price-cost squeeze**

Dairy producers in South Africa experience the price-cost squeeze (when the rate of increases on input prices is higher than that of products). If there is no expansion in terms of volume or improvement in efficiency, an adverse effect on profitability is experienced. One of the ways to overcome this problem is

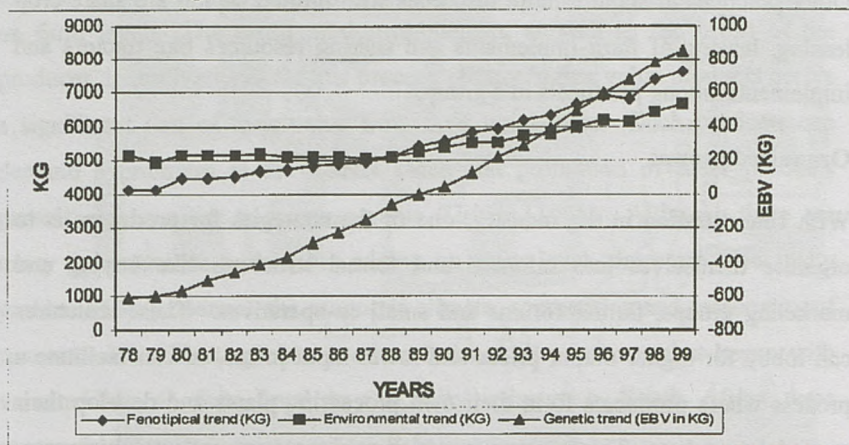


to spread fixed cost over a larger number of units (Botes, 1998). A larger number of cows can, for example, be handled with the same infrastructure and labour. This necessarily implies that the milk buyer should be able to buy more milk from the producer.

### New technology

Having a bull on a dairy farm were the rule a number of years ago. With the development of technology such as artificial insemination (AI), it is possible to have the best bulls in the world available on one farm. The fenotypical, environmental and genetic trends of the registered South African Holsteins from 1978 to 1999 are shown in figure 2. The genetic improvement (measured as estimated breeding values - EBV) were more than a 1 400 kg per cow per lactation. An improvement such as this, which is of a long-term nature, is important for progress in dairy farming.

**Figure 3: Fenotypical, environmental and genetic trends for registered South African Holsteins**



Source: De Villiers (1999)

It is important that producers should adopt new technologies to enhance productivity to be able to stay in business. In a few years, technologies such as sexed semen, Near-Infra-red spectroscopy (for cheap and quick analyses of feeds) and cloning would probably be used on a large number of dairy farms. A balance should, however, be found between cost and the financial benefits of new technologies.



### Advisory teams

The above-mentioned clearly indicates that a dairy enterprise is complex, with expertise needed in different fields. For an individual producer or even for a group of producers, it can be difficult to obtain this information. Varner (1999) suggests an advisory team that knows the situation on the farm, who can help to formulate a business plan and make adjustments when necessary. The advice of specialists such as veterinarians, nutritionists and agricultural economists in an advisory team, can be more integrated and discussions can lead to a better understanding so that producers receive the best advice possible. This multi-disciplinary approach can lead to faster on farm progress and an increase in profitability.

### CONCLUSIONS

It is a fact that producers can only be as efficient as the system environment allows them to be. If the system environment is not anticipating farm profitability, producers should try and alter the situation. Given the deregulation in the South African dairy industry, the primary producers will have to re-orientate and position themselves so as to adapt to the new environment. The deregulated market operates on a logo of "adapt or die" and since there are currently no institutional structures to look after producers, they will have to look after themselves via their own organisations. Unless the contemporary farmer reacts to these issues the new arena will be to the disadvantage of the primary producer.

### Think globally, farm locally

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