K. M. Jacobs and D. Meynard, July 5, 1975. Who'll Survive? The Grower (Supplement No. 2) 84(1).

It cannot be denied that protected cropping is in a difficult economic situation wherever it is practiced. The root of the problem is the tension which exists between inflationary cost increases and the price setting in an open market. Costs increases are extraordinarily large (Fig. 1). The open market structure prevents the producer from passing on his costs. Neither the buyer nor the supplier is strong enough to impose a price on the other. In the consumer markets, demand meets the supplies from different countries and a price is formed. It is this price level which decides how much the producer is going to get eventually for his produce (Fig. 2).

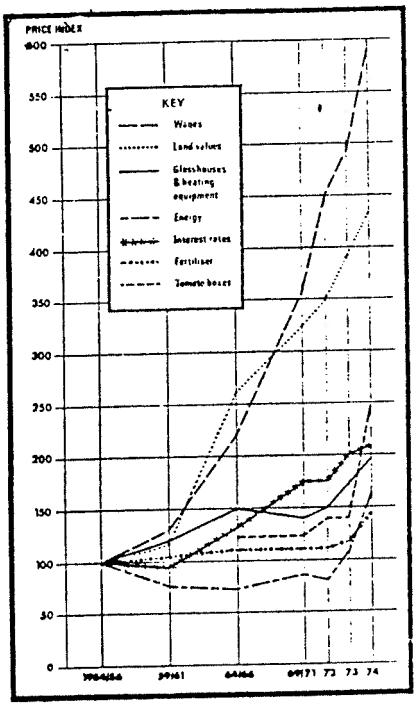

Fig. 1

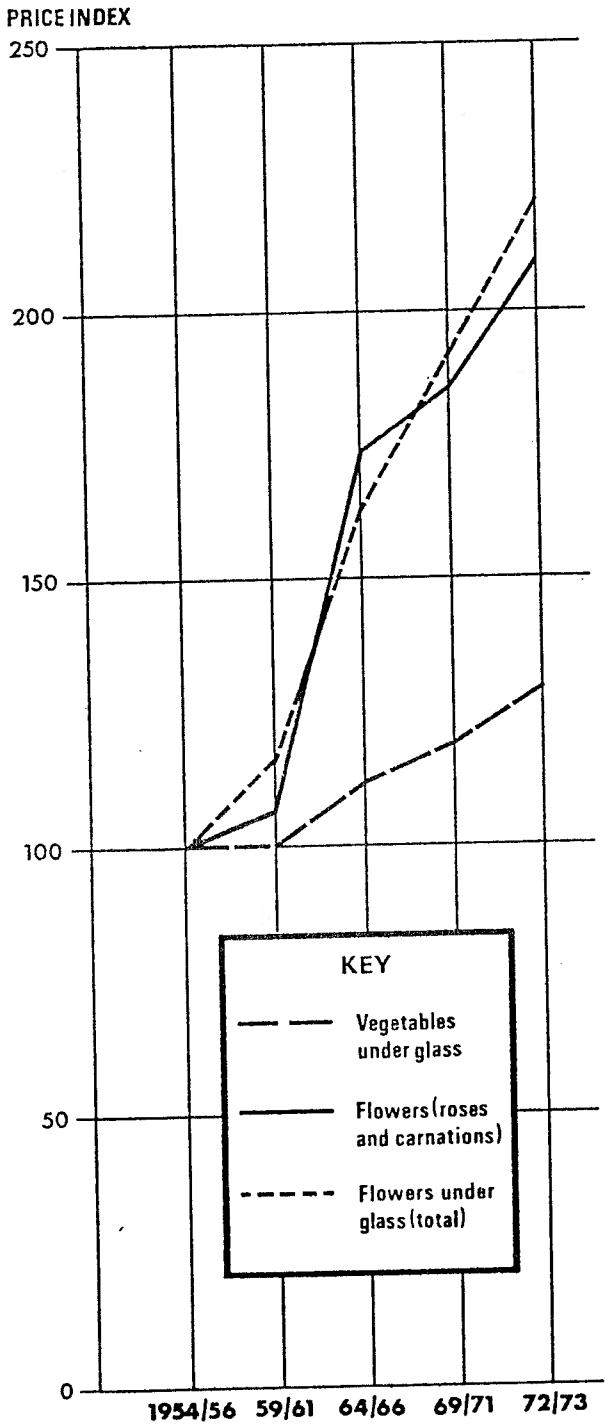

Fig. 2: Producer prices of glasshouse crops over the last 20 years as recorded in Holland; as in Fig. 1 1954/55/56 is taken as the starting point of 100 on the index.

As far as the international market is concerned, three factors play an important part; the rate of exchange, handling and transport costs and the course of demand and supply. Countries with strong currencies are at a disadvantage when exporting (Table 1). For example, Dutch exports to the UK are severely hampered by the difference in currency value, even though

Experience shows that demand for vegetables hardly changes once a certain level of income is reached. In Europe, therefore, producers may at best count on a proportional rise with general inflation. There are strong indications that the demand for flowers is still rising in spite of income stagnation. Apparently social and fashion factors play a part in this.

Table 1: Relative exchange rates against Dutch currency. Netherlands = 100; 1970 = 100.

	Average for the year					Jan.
	1970	1971	1972	1973	1974	1975
Germany	100	100	102	105	106	106
Holland	100	100	100	100	100	100
Belgium	100	100	100	98	95	95
Denmark	100	100	96	95	92	92
France	100	100	97	96	86	85
Spain	100	100	95	96	93	81
UK	100	100	93	78	72	67
Italy	100	100	96	82	71	66

Supplies in the international market are increasing. There has been an enormous expansion of vegetables under glass. In East European countries, the state makes the decision, and this is not changed overnight. In most West European countries, protected cropping has been stimulated by fiscal concessions and generous subsidies. Countries outside of Europe have developed a growing interest in European markets (Table 2). In contrast to vegetables, there is no question of an over-supplied flower market. It is clear that there is no chance that price levels will keep up with cost increases in vegetable production. The opportunities for flowers are more favorable.

The returns/cost relationship can be improved by reducing costs and/or by increasing the returns. The scope for further reductions in costs in glasshouse cropping is limited. A great deal has already been achieved by increasing yields per unit area and per hour labor. Cost reduction through energy savings may have some effect. So far it seems that 15 or 20% saving on energy may well be the limit. Important energy savings are a long, long way off! A further increase in yield would result in a higher pressure on the markets. Some effect on price levels could be achieved by properly directed advertising, emphasizing quality products. But, the most realistic approach to the problem in an open market system is a reduction in supply, resulting in a higher price. It is, in fact, the only way out. The only way seems to be the hard way with the weaker ones giving up and the strong ones surviving.

The growers, or groups of growers, who have a high degree of flexibility and the knowledge and equipment to adapt their production have the best chances of survival. Marketing and distribution costs are claiming an increasing proportion of the retail price. A cheap and efficient organization of service to the customer, which includes maintenance of quality standards, proper presentation, and regular market supplies, is a strong competitive factor. Protected cropping demands sophisticated techniques. Well-equipped research organizations, professional education and extension services are indispensable.

It is the interest of every grower to keep production costs as low as possible. Research into yield improvement is still important. Preference should be given to the development of techniques which demand low investment rates. A wide range of produce has the best chances of being absorbed by the markets. Research into new crops and crop differentiation deserves strong support.

Table 2: Areas of protected cultivation (glasshouses and plastic covered structures) in hectares (1ha = 2.47 acres).

Country	Total	Vegetables and fruits under glass	Vegetables under plastic	Flowers and pot plants under glass and plastic
Northwest Europe				
Holland	7,700	4,700	—	2,850
Belgium	2,100	1,700	—	400
West Germany	3,500	900	300	2,300
UK	2,100	1,500	120	500
Channel Islands	500	450	—	50
Ireland	200	180	—	20
Scandinavia	1,500	600	—	900
France (mostly north)	800	—	—	*
East Europe				
Bulgaria	1,000	750	200	50
Rumania	1,200+	±1,200	?	?
Hungary	300	100	200	†
Poland	700	400	200	100
East Germany	1,200	200	1,000	†
Czechoslovakia	750	450	300	†
Russia	4,200	2,200	2,000	†
Mediterranean				
France (mostly south)	—	—	500	*
Spain	—	—	1,800?	?
Canary Islands	425	—	400	25
Italy	±6,000	?	5,000	700
Greece (and Crete)	—	—	1,500	—
Yugoslavia	—	120	?	—
Algeria	—	—	300	—
Morocco	—	—	60	—
Israel	—	—	50	120

*Total figure for flowers in France is 400.
†Flowers included in other columns.

Table 3: Development of yields per unit of area, labour and energy

	per sq. m.			*per man hour*			*per 1 million Kcal.*		
	1957*	1972/73	*Annual increase*	1957*	1972/73	*Annual increase*	1957*	1972/73	*Annual increase*
Tomato (kg.)	9.5	14	+2.6%	9.2	21.5	+ 5	210	236	+0.8%
Cucumber (fruit)	57.7	69	+1.5%	36	122	+10.7%	1222	947	−1%
Rose† (blooms)	87	90	+0.2%	46	67	+ 2.5%	242	120	−2.8%
Carnation (blooms)	130	150	+1%	55	78	+ 2.4%	650	600	−0.5%

*For cucumbers 1957 1960. †Variety Baccara. Tomato and cucumber figures relate to heated crops.