Advantages

- High productivity
- **Low-cost planting stock**

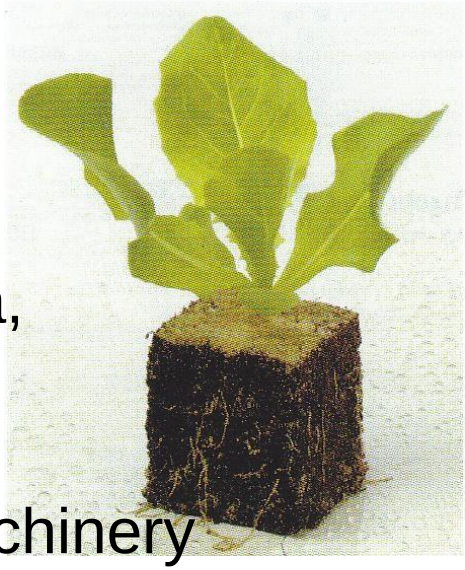
Disadvantages

- **Poorer quality (a reduction in roots and an absence of earth)**
- Higher loss percentage after planting
- Need of a 15-25% standby of seedlings for underplanting (plants not taking roots after planting)
- Stagnant growth after planting (transplanting shock)

- **High manual labour demand (selection, dispatch)**

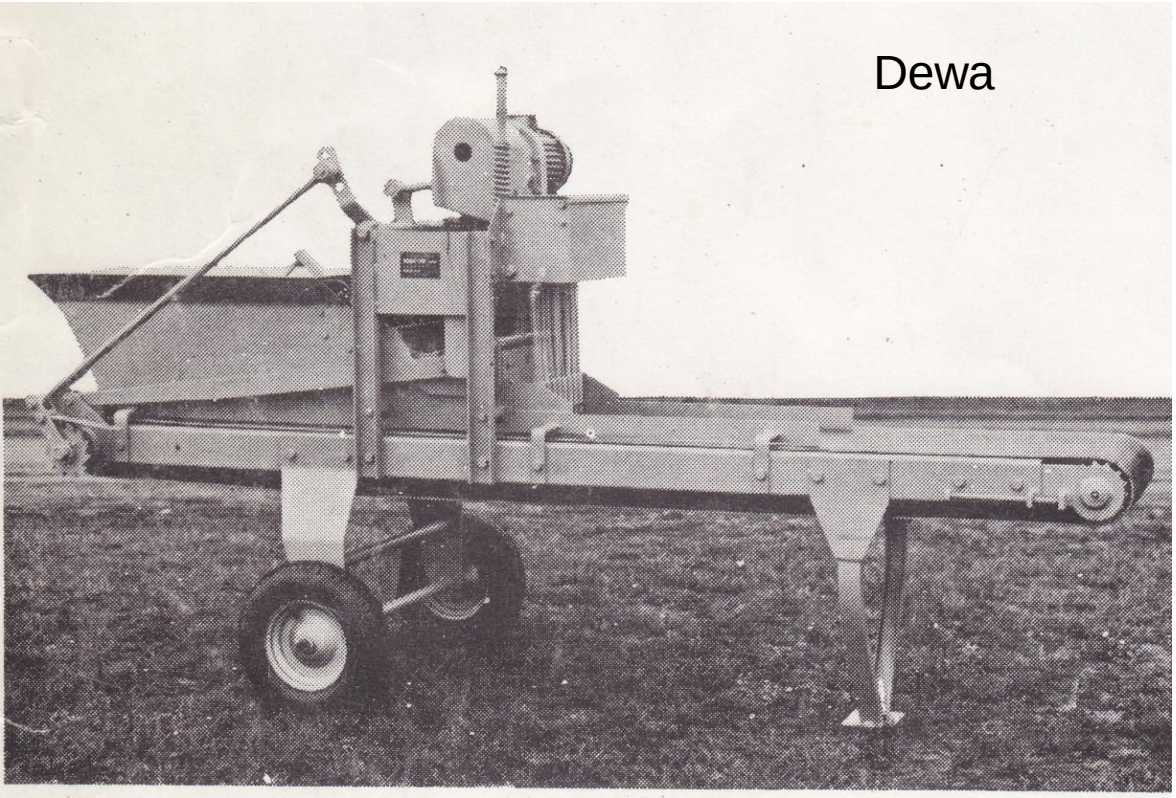
Suitable for medium-late and late cole crops, bush tomatoes, autumn leeks or peppers

Soil Block Planting

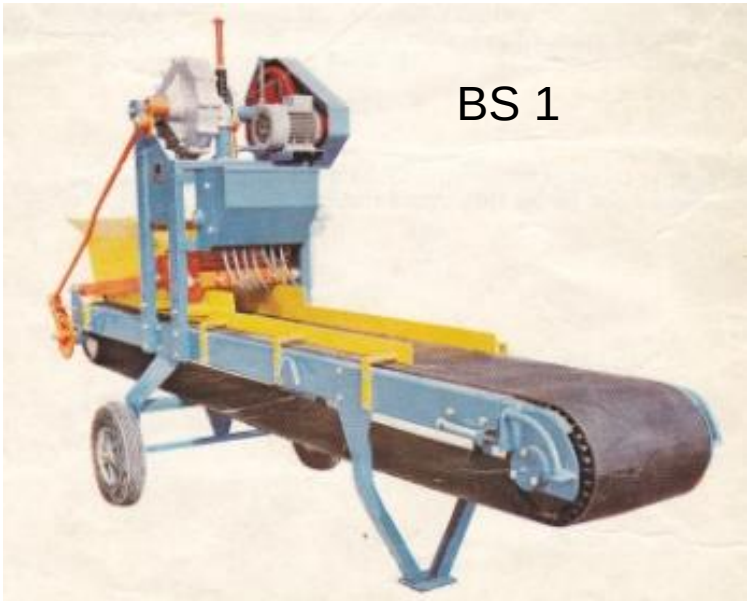


- Since the 1930s
- Soil block makers – presses with matrices

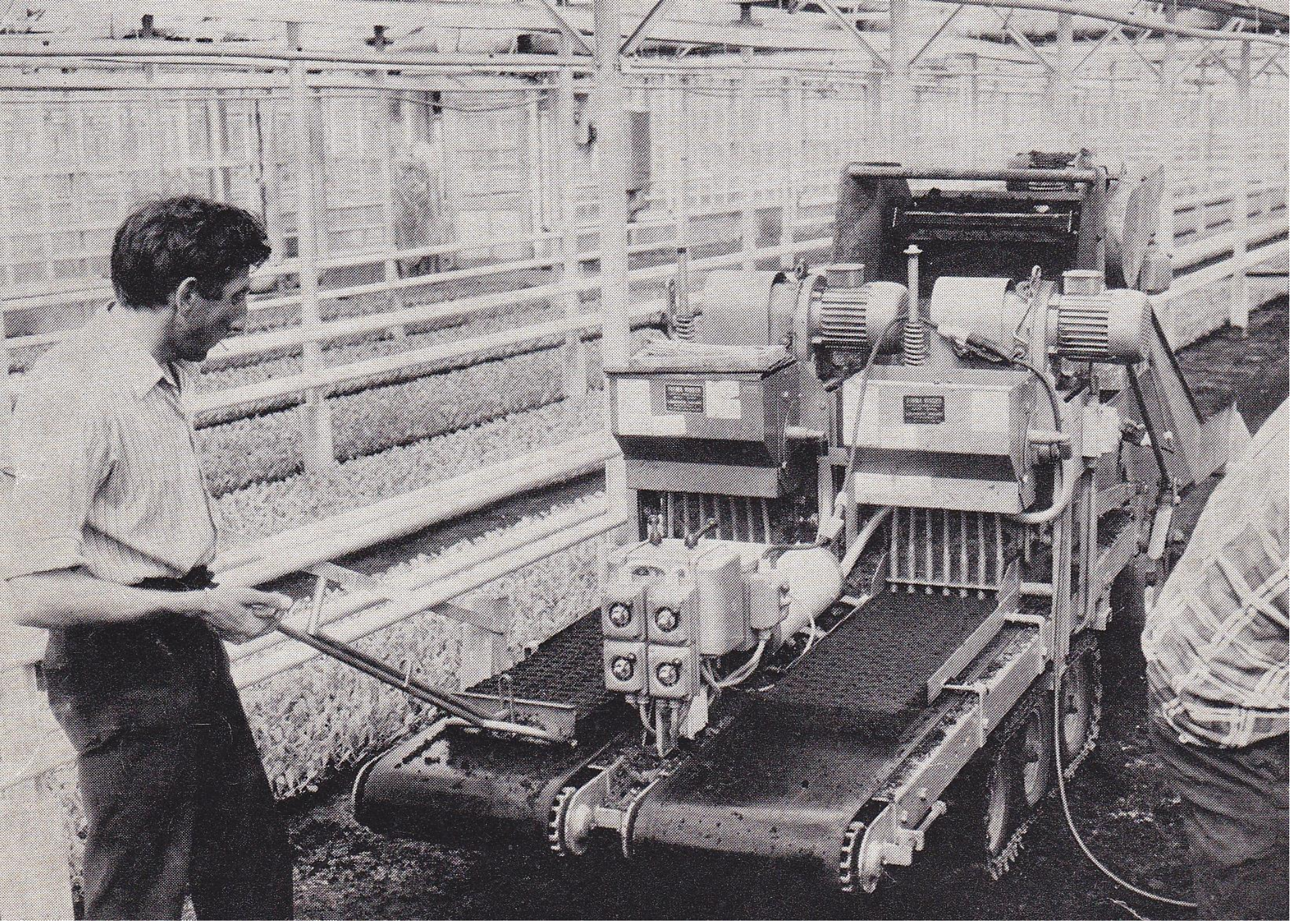
The Netherlands – the manufacturer Visser Dewa,
The Czech Republic: BS 1, BS 2
Self-propelled and stationary machines
Cultivation trays layed in beds with the use of machinery



Dewa

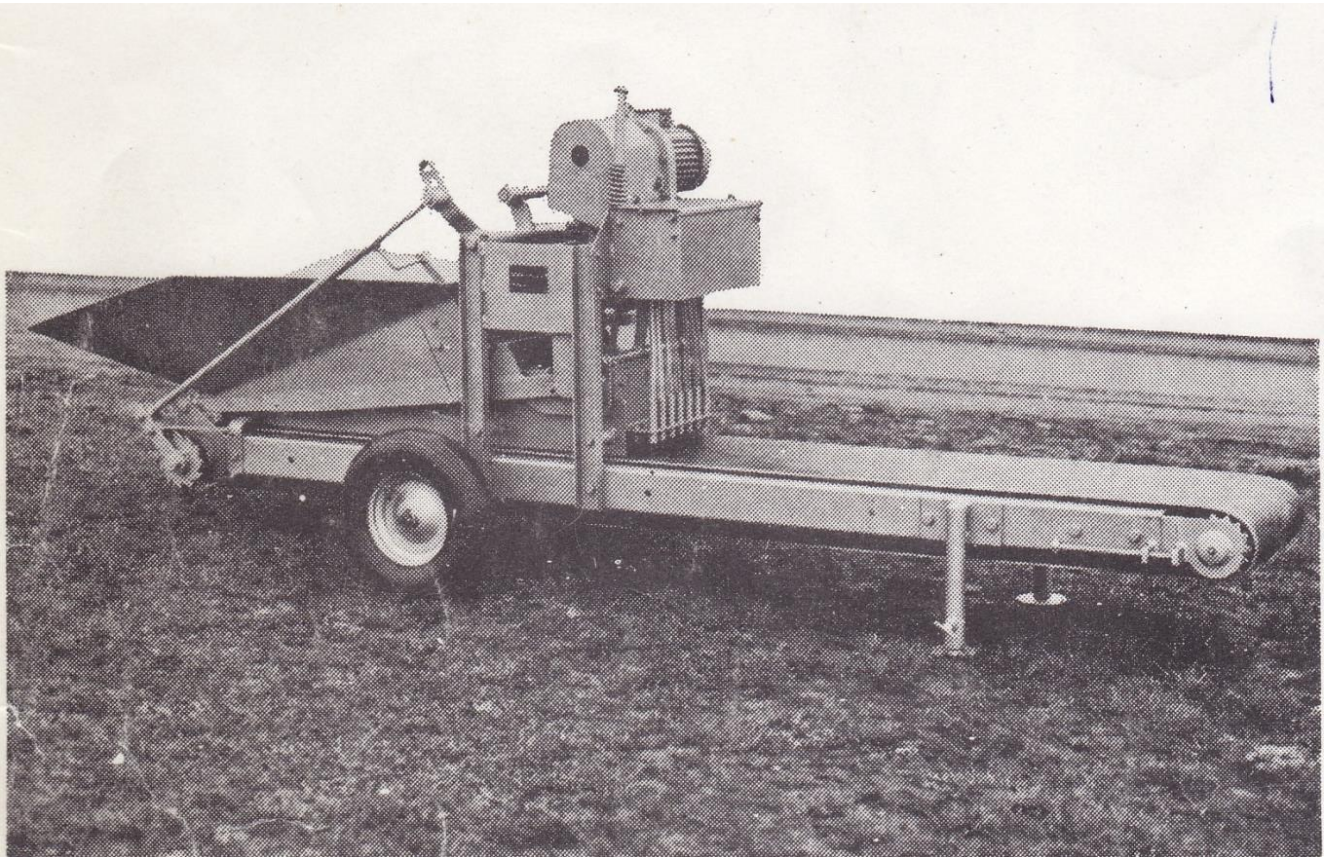


BS 1



- Blocks 3-10 cm in size (cubes)
  - **3 cm** lettuce, celeriac
  - **5 cm** cole crops, tomatoes, peppers
  - **10 cm** greenhouse cucumbers

Cultivation trays of **0.6 x 0.4 m**



Technology

- Soil sieving – own resources
- Block moulding
- Sowing + covering with soil
- Tray stacking
- Transport – conditioning (germination) chambers
- Laying trays on the cultivation area with the help of machines

Shift capacity of 100,000-120,000 blocks of 5 cm

Advantages

- An intact rootball
- **Continuous growth after planting**
- **Early vegetables – earlier harvest**
- Low labour demands (automation)

Disadvantage

- **Great consumption of quality substrate**

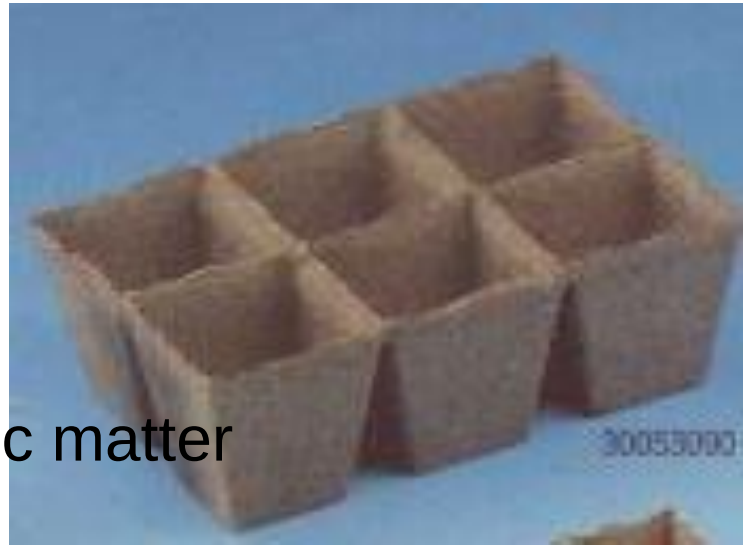
Ø Not used nowadays

Peat Pots

- 1960s
- **Thin-walled pots** of 6 x 6, 8 x 8 cm, ...

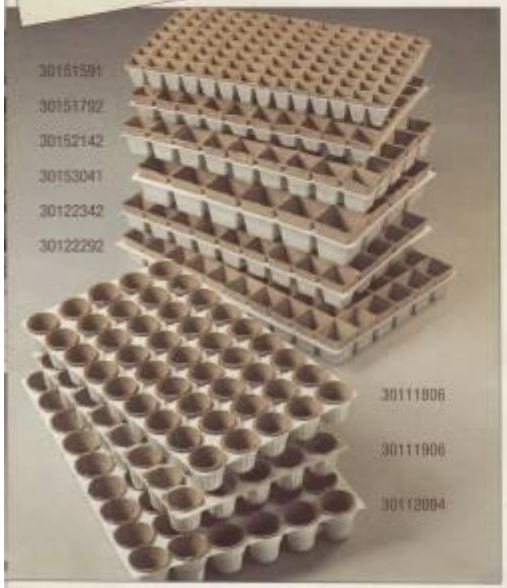
66% of dehydrated peat
30% of cellulose – wood pulp
4% of nutrients
+ binder (animal glue)

- **Planting with the pot**
  - An intact rootball
  - Enrichment of the soil with organic matter



High price (ø 5 cm: 1 CZK)

Jiffy-Pots · Jiffy-Strips · Jiffy Pot-Pack



Jiffy peat pots for propagation

Jiffy peat pots consist of a minimum 50% light porous peat, woodpulp is added as a binder and lime (to adjust pH).
This composition ensures the pots to have the necessary strength in wet condition, porous structure with good root penetration.The pots are made of specially selected raw materials which during the production process are heated.
Jiffy peat pots are manufactured in a wide range: round, square, with or without slits and stacking knobs.
At potting up, the intact root system protects the plants from transplanting shock by letting the plants being transplanted with the pots.

Jiffy-Pots in one-way Poly-sheets

To make the handling in the nurseries easier, Jiffy has developed a one-way system for handling units for pots and strips.
The one-way sheets are made of 0.2-0.5 mm polystyren, which is considered the most environmental friendly plastic product.
All sheets are delivered with a hole in the bottom to ensure good water exchange.

Jiffy-Strips

Jiffy-Strips consist of the same materials as Jiffy peat pots.
The Jiffy-Strips give a fast and efficient handling of several pots at the same time.

	Product no.	Size dia-height, (cm)	Number per m²	Number per crtn.	
JIFFY-POTS SINGLE					
Round:	30011806	5.5×5, slits	330	3400	
	30012094	6×6, slits, knobs	275	2575	
	30012200	6×6	275	3000	
	30042502	7×8, slits	220	2000	
	30013090	8×8	135	1400	
	30013092	8×8, slits	135	1400	
	30111906	5.5×5, slits, wet strength	330	3400	
	30112202	6×6, slits, wet strength	275	3000	
	30113092	8×8, slits, wet strength	135	1400	
	30342502	7×8, slits, wet strength	220	2000	
	30033500	10×8	100	1000	
	30034090	11×10	80	875	
Square:	30022292	6×6, slits	300	2400	
	30023092	8×8, slits	150	1200	
JIFFY STRIPS					
	30051590	4×5	750	6000	(500×12)
	30051591	4×5, with hole	750	6000	(500×12)
	30051790	5×5	400	3960	(330×12)
	30051792	5×5, slits	400	3960	(330×12)
	30052199	6×6, slits	300	2700	(270×10)
	30052200	6×6	300	2400	(200×12)
	30052202	6×6, slits	300	2400	(200×12)
	30053090	8×8	150	1242	(207×6)
	30062290	6×10	300	1920	(160×12)
JIFFY POT-PACK					
Round:	30111806	5.5×5, slits, (30×50)	300	1125	(25×45)
	30111906	5.5×5, slits, (30×50)	265	800	(20×40)
	30112094	6×6, slits, knobs (40×60)	225	1782	(33×54)
Square:	30122292	6×6, slits, (40×60)	300	1620	(27×60)
	30122342	6×6, slits, (30×50)	300	1125	(25×45)
Strips:	30151591	4×5, with hole, (30×50)	750	3696	(33×112)
	30151792	5×5, slits, (30×50)	400	1980	(33×60)
	30152142	6×6, slits, (30×50)	300	1125	(25×45)
	30153041	8×8, with hole, (30×50)	150	600	(25×24)

Jiffy seven

A marketing lure for leisure gardeners, commonly not used – a high
- **Pellets** made of dehydrated peat compressed **to 1/10** of its origina
- When moistened, the pellets soak water
  - increasing their volume
- For direct seeding and pricking out

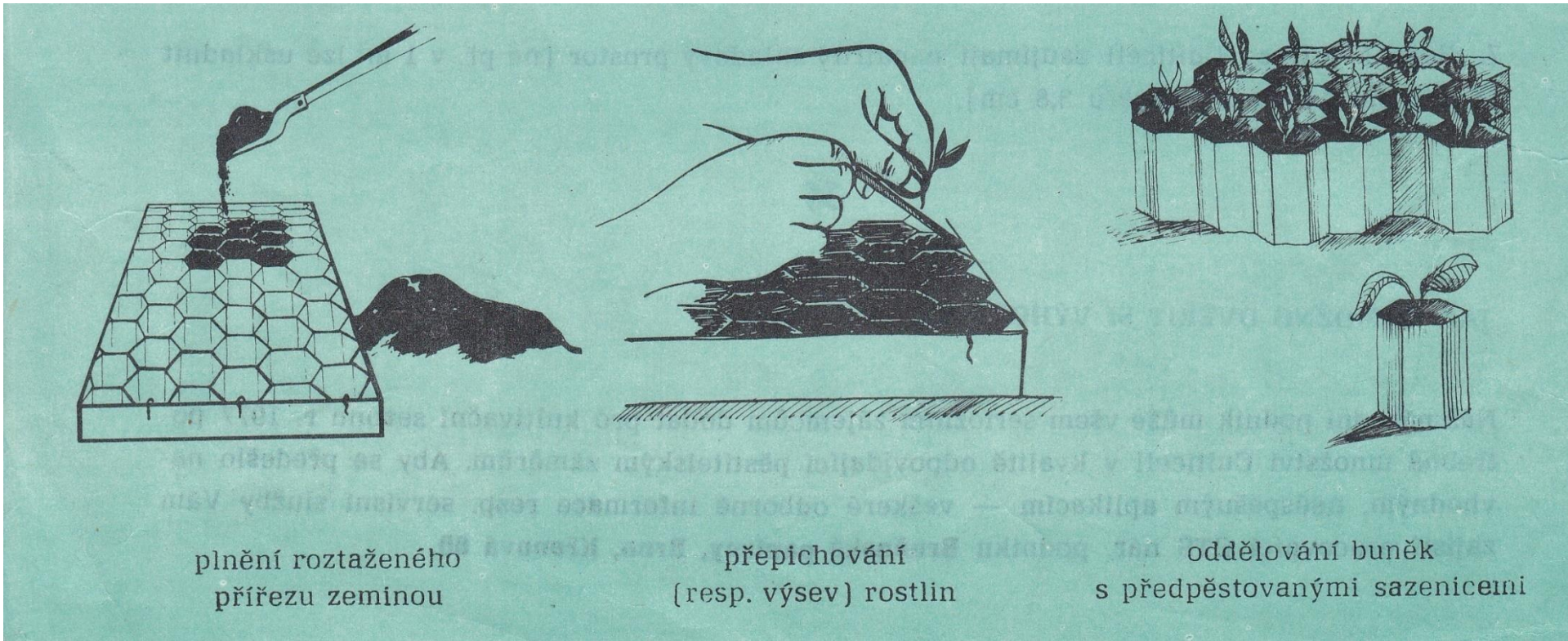
JIFFY-7

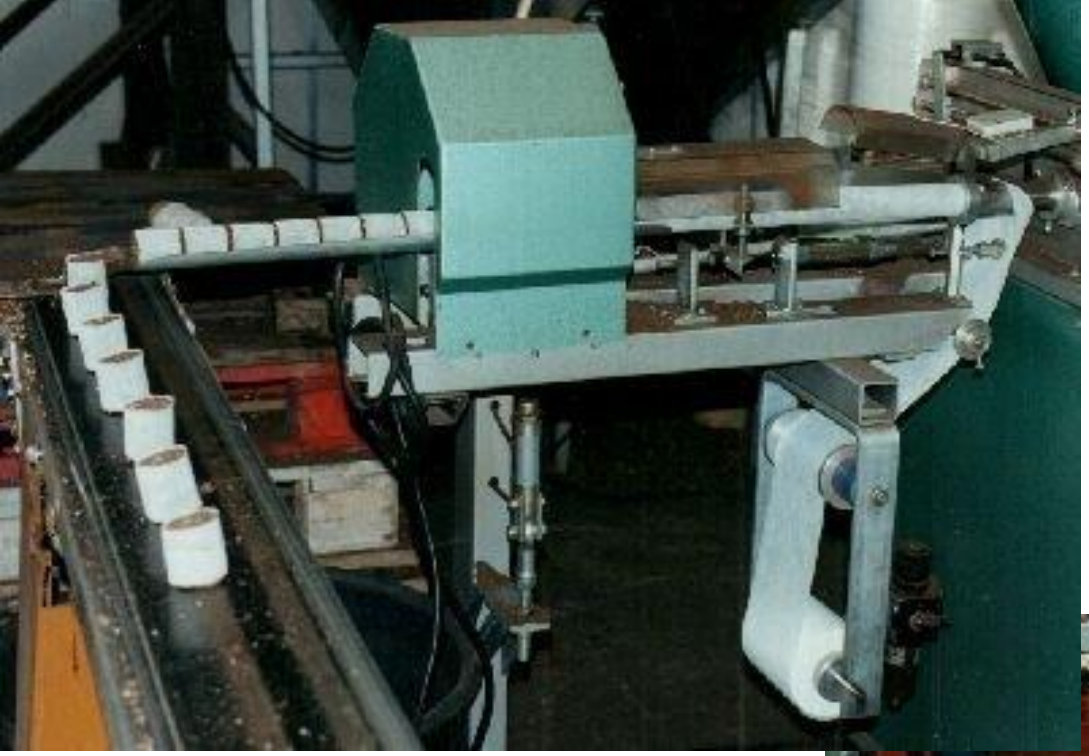
výsev

přepichovaní

Honeycomb-structured Paper Pots (Culticell)

- Moulded **paper parts to be put together**
- Cells joined with water-soluble glue
- A substrate consumption equal to that in soil block planting
- **Type A –** decomposition time of 8 weeks
- **Type B –** up to 1 year (forest-tree nurseries)





Container Planting

- A large and **intact rootball**
- Economically unfavourable
- Manual labour demand
- **Need of a large area and substrate**

Number of Seedlings Gained from 1 m^2 of Area under Glass

Pre-cultivation technique	Size	Pcs/m^2
Mini-plug system	Volume of 25 ml	500
	20 ml	640
	13 ml	1,040
Soil block planting	6 x 6	270
	5 x 5	400
	4 x 4	625
Culticell paper honeycomb	ø 7.5	250
	ø 6	390
	ø 3.8	1,000
Round pots	ø 3	95
	ø 6	180
Broadcast seeding		1,000

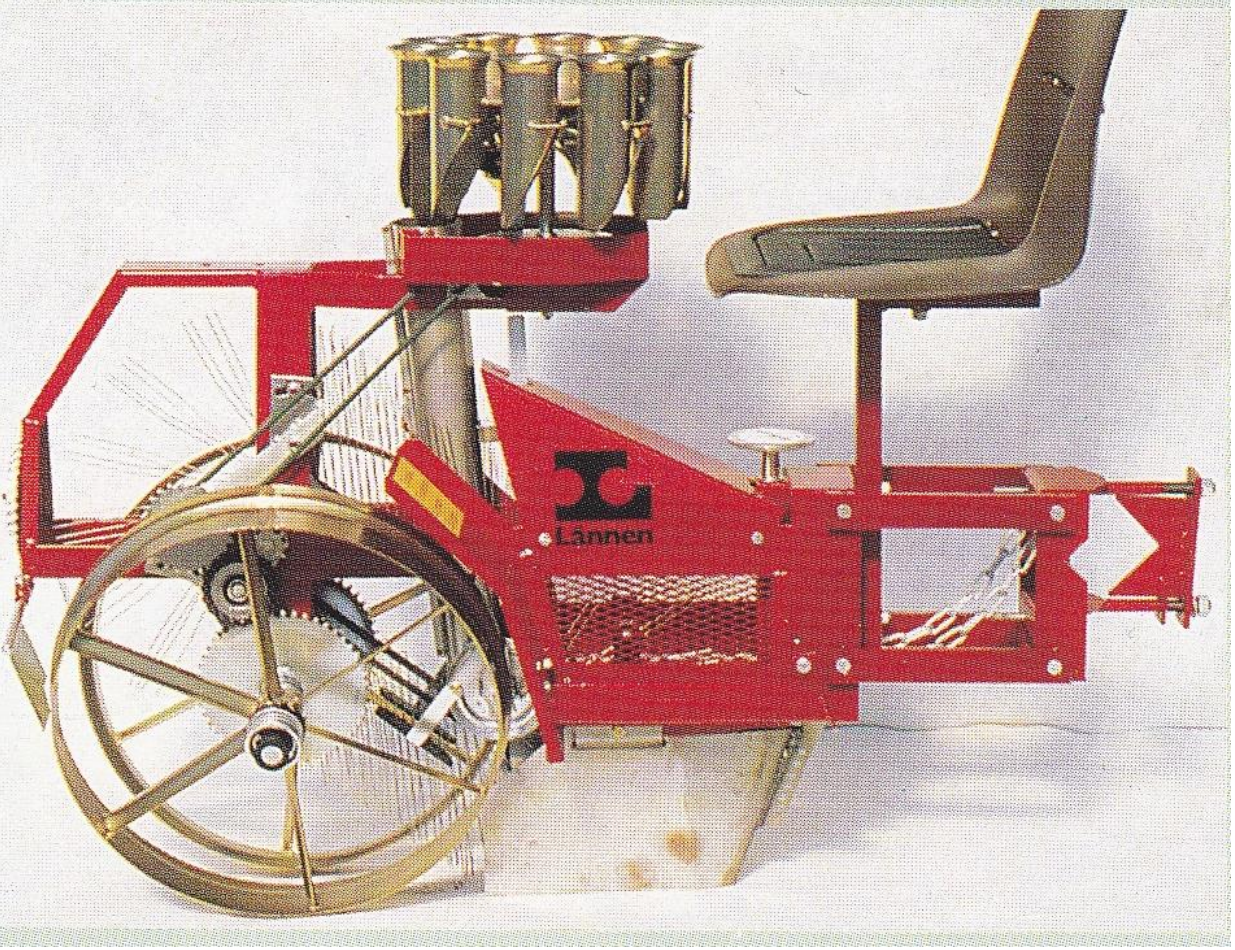
Required Substrate Consumption to Produce 100,000

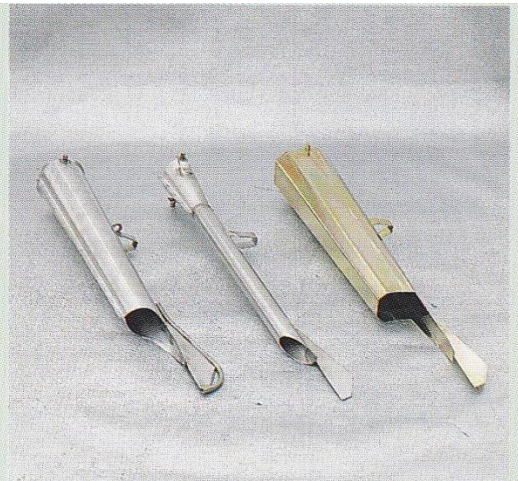
Pre-cultivation technique	Size in cm	m^3
Mini-plug 96	4x4 (41 ml)	4.1
Mini-plug 160	3.5x3.5 (25 ml)	2.5
Mini-plug 260	2.8x2.8 (15 ml)	1.5
Soil block	4 x 4	13 - 15
	5 x 5	22 - 24
Culticell paper	ø 6	10 - 15
	ø 3,8	5 - 6
Round pots	ø 9	41 - 47
	ø 6	12 - 15
Jiffy	ø 5	8

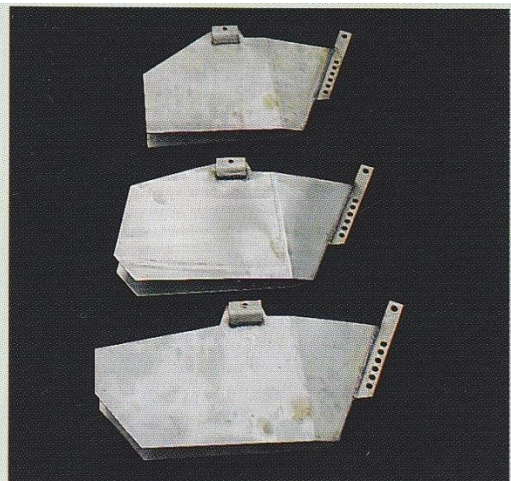
DRUH	Výsev kg/ha	Sadba ks/ha	průměrný výnos t/ha
Brokolice	0,8	50 000	25 - 30
Brukev raná	0,7	120 000	12 - 14
Brukev pozdní	0,6	110 000	25 - 30
Celer bulvový	30-50 g	70 000	30 - 35
Celer řapíkatý	40 g	60 000	30 - 40
Cibule ze semene jarní výsev	4,5 - 8	-	20 - 50
Cibule ze semene podzimní výsev	10 - 12	-	20
Cibule ze sazečky	750 - 1200	-	20 - 50
Čekanka	3 - 7	200 000	6,5 - 9
Česnek	1000	50 - 60 000	4 - 12
Fazole na lusky	100 - 140	-	10 - 12
Fazole na semeno	180	-	7 - 8
Hrách na lusky	200 - 260	-	8 - 10
Chřest	2	16 000	5 - 10
Kapusta hlávková raná	0,6 - 1	80 000	12 - 17
Kapusta hlávková pozdní	0,5 - 1	40 000	22 - 35
Kapusta růžičková	0,5 - 1	40 000	16
Křen	-	35 000	20
Květák raný	0,3	50 000	10 - 15
Květák letní	0,4 - 1	40 000	20 - 25
Lilek jedlý	0,7	40 000	10 - 20

DRUH	Výsev kg/ha	Sadba ks/ha	průměrný výnos t/ha
Lilek jedlý	0,7	40 000	10 - 20
Meloun pravý	0,6 - 1	14 000	30 - 40
Meloun vodní	0,8 - 1	14 000	30 - 40
Mrkev	3 - 4	-	30 - 80
Okurky nakladačky	0,8 - 1	-	20 - 25
Okurky salátovky	1 - 2	25 000	20 - 30
Paprika	0,7 - 1	50 000	20 - 40
Pór	3 - 5	200 000	15 - 20
Petržel	3 - 5	-	14 - 25
Rajčata tyčková	0,4 - 0,6	25 000	28 - 50
Rajčata keříčková	0,5 - 0,7	28 - 30 000	40 - 80
Ředkev	8 - 10	-	12 - 18
Ředkvička	25	-	12 - 14
Řepa salátová	10 - 14	-	20 - 25
Salát	1	100 - 120 000	14 - 16
Špenát	80 - 120	-	14 - 16
Štěrbák	1	100 000	20 - 26
Tykev	2	12 000	30 - 50
Zelí rané	0,4	60 000	30
Zelí pozdní	1 - 2	35 000	40 - 100
Zelí pekingské	0,5 - 1	83 000	30 - 60

LÄNNEN® RT-2


Lännen





VEGETABLE SOWING AND PLANTING TIMES

LEEKS

SUMMER CULTIVARS

Sowing: 15 December – 15 January in a greenhouse

Planting: 10 April – 15 April

Harvesting: July – September

These cultivars do not winter, but freeze

AUTUMN CULTIVARS

Sowing: 1 April – 15 April

Planting: 1 June – 15 June

Harvesting: October _ November

These cultivars winter in mild winters

WINTER CULTIVARS

Sowing: 15 April – 30 April

Planting: 15 June – 30 June

Harvesting: November – mid-April

Lower yields, greater profit

LETTUCE

EARLY CULTIVARS

Sowing: 25 January – 20 February in a greenhouse

Planting: 15 March – 30 March

Harvesting: May

Seedling pre-cultivation for 4-6 weeks

A considerably long-day plant, it runs to flower on a long day

Early lettuce cultivars must not be sown later than on 15 Marc

SUMMER CULTIVARS

Sowing: June – 20 July

Planting: June – August

Harvesting: July – September

CULTIVARS FOR WINTERING

Sowing: 20 August – 30 August

Planting: 20 September – 30 September

Harvesting: End of April – beginning of May

COLE CROPS

EARLY CULTIVARS

Sowing: 1 February – 20 February (by the end of February a
Planting: End of March – beginning of April (until 10 April)
Harvesting: May – June

LATE CULTIVARS

Sowing: 15 April – 20 April (by the end of April at the latest)
Planting: 15 June – 30 June
Harvesting: October

CAULIFLOWER FOR WINTERING

Sowing: 10 July – 15 July

Planting: 20 August – 30 August

Harvesting: 20 April – 20 May

BROCCOLI

Sowing: 1 June – 10 June

Planting: 20 July – 1 August

Harvesting: November, December

KALE FOR WINTERING (The Cultivar Arkta)

Sowing: 10 August – 15 August

Planting: 20 September

Harvesting: 20 April – 30 May

CELERIAC

Sowing: 10 March – 15 March
Planting: 15 May – 25 May
A temperature of above 15-18°C (vernalisation!)

The time of seedling pre-cultivation of 60-80 days

PEKING CABBAGE

Sowing: 10 July – 20 July
Planting: 10 August – 15 August
Harvesting: 15 October

PEPPERS

Sowing: 20 January – 20 Februar
Planting: 15 May – 30 May

TOMATOES

Sowing: 5 March – 15 March
Planting: 15 May – 30 May

A direct sowing of bush cultivars
20 April – 30 April