

ANNUAL HERBS

AT HENFAES

HERB
PRODUCTION
GUIDES

August 2010

REF: 020505



INTRODUCTION

Henfaes horticulture demonstration plot was originally established with soft fruits. The area has since expanded to include lavender, asparagus and rhubarb. In April 2010 it was extended further to provide an additional 60m bed with perennial herbs (mints, thyme, rosemary and sage). The most recent addition to the area is a 60m bed of annual herbs – some directly sown, some transplanted. This factsheet aims to give an overview of the establishment of the annual herbs plot at Henfaes.

PREPARATION OF THE FIELD SITE

The site was previously grazing for sheep. The first step of preparation was to securely fence the plot to ensure rabbits and sheep were excluded. The grass was sprayed off with Glyphosate in mid-February. It was ploughed and cultivated on 11th March 2010 and treated with Pirisect (active ingredient: chlorpyrifos) on 18th March to, hopefully, minimise leatherjackets. The bed was manually raked over at the end of April. Stomp (active ingredient pendimethalin), a residual herbicide, was applied prior to planting on 16th June, except on the areas where basil would go (as basil is sensitive to it).

VARIETIES

The same herb varieties were used for both direct drilling and transplanting in order to compare the two production methods.

Table 1: Annual herb varieties for Henfaes herb plots

Herb common name	Latin name	Description
Parsley – var Favorit	<i>Petroselinium crispum</i>	Intensely flavoured curly leaf parsley – not as tightly curled as many, deep green colour.
Coriander – var Filtro	<i>Coriandrum sativum</i>	A high yielding variety that is slow to bolt
Dill – var Fleet	<i>Anethum graveolens</i>	Hardy annual, distinct aniseed flavour
Chives – var Gedney	<i>Allium schoenoprasum</i>	Hardy biennial grown as annual, mild onion flavour
Basil – var Twenty	<i>Ocimum basilicum</i>	Half hardy annual, bright green leaves, strong clove flavour

DIRECT DRILLING

The first drilling of seeds in the field was on 17th June. We used a brush type manual seed drill (see fig 1) with a 4mm diameter disc setting for the basil, chives and parsley; and a 5mm diameter setting for the coriander and dill. The second drilling was on 1st July. On each occasion, three rows of three metre length were drilled of each variety, with 30cm spacings between the rows.

SOWING MODULES

One 345 cell module tray of each herb was sown by hand on 17th June and 6th July into John Innes No 1 compost. The sown trays were kept in an unheated glasshouse and watered as required to keep the compost moist.

The plug plants were **transplanted** to the field on 20th July and 27th July respectively with the exception of the second sowings of parsley and chives which were not sufficiently established for planting out at that time.

The plug plants were transplanted to the field at 10cm in the row spacings, 30cm between the rows.

ON-GOING MANAGEMENT

All plants (direct drilled and transplanted) have been given one feed of 21:8:11 fertiliser at a rate of 50g/m². The plot will be hand weeded as required throughout the growing season. The herbs will be trimmed as required.

COSTS OF PRODUCTION

Throughout the process we have monitored the inputs (labour and materials) involved in establishing the demonstration plot. Tables 2 and 3, below, summarise this information.

Table 2: approximate production costs per square metre for establishment of **directly drilled** annual herbs at Henfaes, 2010

Item	Unit	Unit cost (£)	Quantity	Cost (£/m ²)	Adjust for % success
Seed					
Parsley	kg	70.00	0.001	0.07	
Coriander	kg	17.00	0.001	0.02	
Dill	kg	30.00	0.001	0.05	
Chives	kg	51.00	0.001	0.08	
Basil	kg	70.00	0.002	0.14	
Weeding (per variety)	hr	6.50	0.2	1.30	
Ground preparation					
Insecticide	litre	10.75	<0.01	0.01	
Insecticide application	hr	7.20	<0.01	0.04	
Cultivating	hr	22.00	0.01	0.25	
Drilling – labour time	hr	6.50	0.20	1.30	
Total cost					
Parsley				2.97	4.24
Coriander				2.92	2.92
Dill				2.95	3.10
Chives				2.98	*5.42
Basil				3.04	failed

*failures in chives partly due to rabbit problems

Table 3: approximate production costs **per square metre** for establishment of **transplanted** annual herbs at Henfaes, 2010

Item	Unit	Unit cost (£)	Quantity	Cost (£/m ²)	Adjust for % success
Seed					
Parsley	kg	70.00	0.001	0.01	
Coriander	kg	17.00	0.003	0.05	
Dill	kg	30.00	0.001	0.03	
Chives	kg	51.00	0.001	0.05	
Basil	kg	70.00	0.001	0.07	
Module trays	ea	0.50	1	0.50	
Compost	litre	0.07	3	0.21	
Labour - sowing	hr	6.50	0.03	0.20	
Labour – monitoring / watering	hr	6.50	0.05	0.33	
Labour – planting out	hr	6.50	0.3	1.95	
Ground preparation					
Insecticide	litre	10.75	<0.01	0.01	
Insecticide application	hr	7.20	<0.01	0.04	
Cultivating	hr	22.00	0.01	0.25	
Total cost	Parsley			3.50	3.50
	Coriander			3.50	3.50
	Dill			3.50	*8.75
	Chives			3.50	6.36
	Basil			3.57	3.57

* losses in dill were due to rabbit problems, not plant / establishment problems

nb these costs are establishment costs only – they do NOT include costs of harvesting

Fig 1: Brush Type drill – loaned by Chris Creed