



Horticultural
Development
Company

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Grower Summaries for all reports listed can be obtained from www.hdc.org.uk
Enter the project number into the box in the 'Advanced Search' facility.

Note – The list of specific HDC herb-related projects is currently relatively modest (page 1). We have therefore, compiled this Index to reflect the number of research areas that are of potential benefit to herb growers.

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BOF/PC 144	Bulbs and Flowers: Pest and Disease information cards Set 1: Narcissus 2000 Set 2: Other bulbs 2002 Set 3: Cut flowers 2005	CP 21	Quantitative application of trap plants for pest control in field vegetables New project – awaiting first report
CP 1	A review of peat reserves and peat usage in horticulture and alternative materials Final report 1990 (Publication: 'Peat and it's alternatives')	CP 22	Engineering Doctorate at the University of Warwick: exploring opportunities for process improvement and automation in horticulture Final report 2004
CP 4	Disinfection in commercial horticulture: a review of chemical disinfectants, soil treatment with formalin and water treatments for controlling plant pathogens Final report 1992	CP 22b	Industry standard returnable container pooling system for the horticultural amenities supply sector Final report 2005
CP 6	Integrated use of soil disinfection and microbial/organic amendments for the control of soil borne diseases and weeds in sustainable crop protection Year 1 report 2000 Year 2 report 2001 Year 3 report 2002 Year 4 report 2003	CP 24	Future development of the British Ornamental Plant Producers (BOPP) Accreditation Scheme to encompass all sectors of the UK Ornamentals Industry Final report 2006
CP 8	GIS-based commercial high resolution agro-meteorological data, products and services on the Internet New project - awaiting first report	CP 41	A review of peat alternatives for commercial plant production in the UK Final report 2006
CP 10	Activity patterns in the western flower thrips and their manipulation to enhance control measures Year 1 report 2002 Year 2 report 2003	CP 52	Provision of study of responsibility and cost sharing mechanisms in the quarantine plant health sector Final report 2007
CP 12	HDC Scoping Study – identifying labour saving R&D opportunities for edible crops New project – awaiting first report	FV 6	Control of <i>Phytophthora</i> crown rot in parsley Final report 1988
CP 13	Promoting the efficient use of water, and reducing environmental impacts, in horticulture field vegetable irrigation Report 2003 Report 2004	FV 10	1. Seed bed ecology, seed physiology: predicting the interaction Literature review 1987/88 2. Seed vigour in species of field vegetables. Prediction by means of machine vision Final report 1988
CP 19	Horticultural crops: a demonstration of the potential benefits of modified plastic crop covers Report 2004 Report 2005	FV 10a	3. Seed survey for the Lincolnshire, Scotland and Humberside areas Report 1988 4. Vegetable seed: assessment and improvement of vigour Report 1987
		FV 17a/c	Prediction of nitrogen requirement for vegetables: Part I cauliflowers Report 1993
		FV 17b	Nitrogen prediction for vegetable crops: completion of soil and crop analyses – samples collected from 15N labeled treatments in FV 17a Final report 1994

FV 22	Visit to Universities and Research Stations in Canada and the USA Report 1990	FV 107	1. Field vegetables: mechanical and mulching weed control techniques Final report 1994
FV 38a	Review of crop covers and mulches for field vegetables Final report 1990		2. Organic farming centre Report 1990
FV 38c	Evaluation of non-woven crop covers and mulches Final report 1991		3. Monitoring approaches to non-chemical weed control: Report of a visit to the Netherlands and Denmark 1992
FV 39 & 39a	Timing of irrigation during vegetable crop establishment Final report 1994	FV 114	Culinary herbs: control of rust and powdery mildew Final report 1995
FV 40 & 40b	Improving crop establishment by seed priming, pelleting and the dibber drill Final report 1994	FV 119	Annual herbs: evaluation of herbicide tank mixes for post emergence annual weed control in direct-sown outdoor umbelliferous herbs Final report 1999
FV 41	Starter fertiliser for drilled horticultural crops: Final report 1994	FV 140	Improving irrigation scheduling using infra-red thermometry Final report 1996
FV 41a	Design and testing of commercial prototype for application of starter fertiliser Final report 1993	FV 141	Development of an electrified fence to exclude rabbits from field vegetable crops Final report 1995 Factsheet 19/95
FV 47	NIAB variety trial: Summary results Report 1992	FV 142	Aphid sex pheromones to enhance parasitoid efficiency Final report 1997
FV 51	Review of the value of salt as a fertiliser and herbicide for vegetables Final report 1990	FV 150	A review of the factors affecting the quality and shelf life of UK field vegetables for the fresh market Final report 1993
FV 54a	Bulb onions and other vegetables: control of volunteer potatoes using fluroxypyr and clopyralid Final report 1990	FV 169	Drilled horticultural crops: preliminary evaluation of fresh primed seed Final report 1997
FV 56	WELL_N: the user friendly nitrogen advisory model for on-farm use Final report 1994	FV 180	Assessment of the potential for placement of small quantities of fungicide in direct drilled crops Final report 2000
FV 56a	Decision support system to design whole farm rotations that optimise the use of available nitrogen in mixed arable and horticultural systems: on-farm testing Final report 2001	FV 188	HDC Funding for a booklet on Crop Establishment 'Getting Established – Improving crop establishment to aximize marketable
FV 56b	WELL_N: further development and validation of the HRI nitrogen model Computer program 'WELL_N' 1991/94	FV 204	The provision of an integrated system of vegetable prediction models within the MORPH framework Current – computer models – 'Spacing', 'WELL_N' and 'Broccoli'
FV 76	Control of volunteer oilseed rape in vegetable crops Final report 1991	FV 220	Application of beneficial micro-organisms to seeds using priming techniques (LINK) Final report 2001
FV 100a	Nitrogen prediction for vegetable crops in Germany – study tour Report 1992		

FV 220a	Improved crop health and establishment using beneficial micro organisms Final report 2007	FV 274	Cutworm development and survival: a risk assessment and early warning programme for growers Final report 2006
FV 221	Novel strategies for aphid control using entomopathogenic fungi Final report 2004	FV 285	Desk study to review the use of modified atmosphere packaging systems Final report 2007
FV 225	Integrated control of slugs in Horticulture (HortLINK) Report 2001 Report 2002 Report 2003	FV 287	Survey of approvals in other EU countries cross all crops of interest to HDC Year 1 report 2006
FV 229	Field Vegetables: assessment of the potential for mobile soil steaming machinery to control diseases, weeds and mites of field salad and related crops Final report 1999	FV 290	Herbs: Pre and post-harvest factors affecting shelf life, flavours, yield and quality Final report 2007
FV 231	3D Farming: making biodiversity work for the farmer Final report 2004	FV 292	Field-grown salads: quantifying the risk of pathogen contamination through irrigation water Year 1 report 2007
FV 238	Dissemination and exploitation of aphid monitoring data Final report 2004	FV 292a	Field-grown salads: quantifying the risk of pathogen contamination through irrigation water New project – awaiting first report
FV 240	Chicory: control of root rot caused by <i>Phytophthora</i> species Final report 2006	FV 295	The use of carbon dioxide as an anesthetic/muscle relaxant to aid removal of invertebrate contaminants in salad crops Final report 2007
FV 245a	Herbs: evaluation of herbicides to fill identified gaps, resulting from EU review of pesticides Final report 2003	FV 298	The Production of increased labour efficiency models in horticulture (field vegetables) Final report 2007
FV 245b	Herbs: evaluation of herbicides for Labiate species to fill identified gaps, resulting from EU review of pesticides Final report 2004	FV 307	Minimising environmental impact of weed control in vegetables by weed detection and spot herbicide application New project – awaiting first report
FV 247	Reduction of oedema in herb and speciality salad crops Annual report 2003 Annual report 2004	FV 310	Lettuce (transplanted outdoor): evaluation of new herbicides for crop safety and weed control Annual report 2007
FV 250	Aphid control in lettuce and brassicas Year 1 report 2004	FV 315	The effects of biostimulants and plant health promoters in leafy salad crops under disease pressure. New project – awaiting first report
FV 254	HDC Outdoor Crops Bulletin Year 1 report 2006	FV 318	Outdoor herbs: integrated management of parsley Septoria and coriander bacterial blight New project – awaiting first report
FV 256	Field vegetables: solutions to the loss of active ingredients for weed control Final report 2005	FV 319	Outdoor salads: evaluation of novel insecticides for control of aphids New project – awaiting first report
FV 256a	Continuation: Solutions to the loss of active ingredients for weed control in vegetable crops Final report 2008		
FV 266	Mechanical weeding for sustainable and organic salad and Brassica production [LINK] Final report 2007		

FV 324	Field Vegetables: cutworm development and survival: risk assessment and early warning for growers, 2007-9 New project – awaiting first report	HNS 115	Report on the XXVI International Horticultural Congress and Exhibition 2002, Toronto, Canada Final report 2003
FV 330	Field-grown herbs: evaluation of a mechanical method for the cultural control of leafhoppers New project – awaiting first report	HNS 116	Hazard analysis critical control point and quality management systems for hardy nursery stock producers – training workshop Workshop Handout 2003
FV 331	Understanding coriander bolting: learning from grower experience New project – awaiting first report	HNS 117	Identifying the key factors controlling HNS uniformity Final report 2004
FV/HNS/PC 245	Herbs: an independent field and crop evaluation of pesticides to fill identified gaps Final report 2003	HNS 125	Hardy ornamentals: the potential of compost teas for improving crop health and growth Report 2004
FV/SF 138	A review of the current knowledge on the use of fertigation of vegetables and trickle irrigation and of its potential application Final report 1994	HNS 136	Profit optimisation through modelling and management of non-uniformity in Hardy Nursery Stock species Year 1 report 2006
HNS 34	Survey of demand for hardy nursery stock Final report 1992/93	HNS 140	Survey to determine current industry practice and future needs for the use of low temperature storage Final report 2006
HNS 42	Supplementary lighting for alpiners, herbaceous and hardy nursery stock species Publication – ‘Lighting for nursery stock’	HNS 144	UK ornamental horticulture & supply chain management Final report 2007
HNS 42a	Supplementary lighting for alpiners, herbaceous and hardy nursery stock species Final report 1994	HNS 161	Provision of funds to assist in the promotion and marketing of ProVaR New project – awaiting first report
HNS 48	Hazard assessment of poisonous plants in the UK horticultural trade Final report 1994	PC 4	Energy saving: the use of thermal screens in glasshouses Final report 1987
HNS 49/49a	Influence of humidity and other stress factors on plant growth Final report 1992/93 & Final report 1993/94	PC 15	1. A review of the biology and control of the vine weevil Scientific paper 1987/90 2. Influence on fungicides and insecticides on the entomogenous fungus <i>Metarhizium anisopliae</i> , a pathogen of vine weevil Scientific paper 1987/90 3. Observations on the development, egg laying and fecundity of vine weevil adults Scientific paper 1987/90 4. Application of <i>Metarhizium anisopliae</i> conidia to control vine weevil larvae on glasshouse pot plants Scientific paper 1987/90 5. The development of vine weevil larvae on a range of ornamental pot plant species and the potential for control using <i>Metarhizium anisopliae</i> Scientific paper 1987/90
HNS 98	Hardy nursery stock: optimising rooting media for leafy cuttings Final report 2003 Factsheet 05/05		
HNS 103	Hardy herbaceous perennials: a review of techniques for manipulating growth and flowering Final report 2001		
HNS 103a	Hardy herbaceous perennials: validation of a screening protocol for factors that manipulate flowering Final report 2002		
HNS 108	Growth of a range of nursery stock subjects under different coloured and spectral filter plastic films Final report 2003		
HNS 110	Factors affecting bud-break in HNS – A review Final report 2001		

	6. Selection of virulent and persistent <i>Metarhizium anisopliae</i> isolates to control black vine weevil larvae on glasshouse begonia Scientific paper 1993	PC 52	Review of low volume mist systems of pesticide application Final report 1992
PC 16	1. A study of research work on disease problems of protected crops in Holland, G M McPherson Report 1987/88	PC 52a	An assessment and evaluation of the safety aspects of low volume mist (LVM) systems and the drafting of standard operating procedures Final report 1992
	2. New R&D developments on protected crops in Holland, K E Cockshull Report 1987/88	PC 53	1. Film-plastic and rigid plastic clad tunnel buildings, code of practice for design, construction and loading Final report 1991
	3. Alternative glasshouse vegetable crops in Holland, J T Ashdown Report 1987/88		2. Design imposed roof loads for film-plastic clad tunnel buildings Final report 1992
PC 22	1. Screening of pesticides for side effects of leafminer parasites Scientific paper 1990/91	PC 60	Protected crops: root diseases in recirculating hydroponic systems and the potential for control with disinfection Final report 1993
	2. Report of a visit to Holland to obtain information on the most recent research done on the South American leaf miner (<i>Liriomyza huidobriensis</i>) Report 1990	PC 60a	The development of a sustainable system for the prevention of root disease in recirculating hydroponic crops Final report 2000
	3. The South American leaf miner <i>Liriomyza huidobriensis</i> Final report 1991	PC 67	Reed beds: treatment of hydroponic run-off Final report 1994
PC 22a	Monitoring the incidence, survival and natural parasitism of <i>Liriomyza huidobriensis</i> around infested glasshouses Final report 1991	PC 72	Environmental control to prevent condensation on plants in greenhouses Final report 1995
PC 25	NOx pollution in greenhouses using boiler flue-gases Final report 1991	PC 91a	Ornamentals Advice Centre: proposal for a telephone survey Final report 1995
PC 25a	Gaseous air pollution in greenhouses using a low NOx CO2 generator Final report 1991	PC 93	The future role of Torque (fenbutatin oxide) in the integrated control of two-spotted spider mites (TSSM) in protected edible and ornamental crops Final report 1996
PC 34	Sterilisation of glasshouse soils: review of options Final report 1991	PC 95	A literature review of tomato spotted wilt virus (TSWV) and its vector Western Flower Thrips (WFT) with reference to the production of protected ornamental plants Final report 1996 Factsheet 32/97
PC 47	Induced air movement to improve greenhouse climate Final report 1994		
PC 49	Optimal control of greenhouse climate Final report 1994		

PC 97	Identification of sources of inoculum and the development of rapid diagnostic tests for Pythium infestation of ornamentals on nurseries Final report 1998	PC 165	Protected crops: design and evaluation of a robust biologically based strategy for the control of MACE resistant <i>Myzus persicae</i> Final report 2002
PC 97a	Ornamentals: sources of Pythium inoculum, fungicide resistance and efficacy of surface sterilants Final report 2001	PC 166	The efficacy of water and fertiliser use in different protected ornamental production systems Final report 2000
PC 100a	Report on the ISHS symposium on pot & bedding production at Michigan State University Report 1989	PC 169	Optimisation of the glasshouse environment in summer using the selective infra-red filter material, Luminance THB, as an internal shade screen Final report 2000
PC 100b	Travel to the International Conference on Thysanoptera (Thrips) at the University of Vermont, USA Report 1993	PC 170	Protected crops: the potential of spectral filters for pest control Final report 2000
PC 107	Comparison of chemical disinfectants for treatment of a glasshouse sand bed contaminated with Phytophthora Final report 1995	PC 172	The use of dynamic climate control systems for the production of high value ornamental crops in the UK - a technical assessment Final report 2001
PC 119	Glasshouse irrigation: a review of R&D and evaluation of current techniques for irrigating edible crops grown in hydroponic systems Final report 1997	PC 176	Protected crops: improving the efficiency of supplementary lighting equipment and installations Final report 2001 Publication 'Supplementary lighting – A grower guide'
PC 123	Control of capsid bugs within IPM programmes in protected crops Final report 2001 Factsheet 37/96	PC 177	Protected flower crops: evaluation of sugar products to improve the control of Western Flower Thrips Final report 2001
PC 134	Ornamentals: a review of the role of ethylene on post harvest flower senescence and abscission and methods to ameliorate ethylene effects Final report 1997 Factsheet 24/97	PC 178	Protected herbs: control of glasshouse whitefly and leafhoppers within IPM programmes Final report 2001 Factsheet 05/01
PC 147	Control of sciarid fly during ornamental plant propagation Final report 1998	PC 180	Protected crops: a review of the potential of <i>Beauveria bassiana</i> against pests of glasshouse grown crops in the UK Final report 2000
PC 147a	Ornamentals: evaluation of the effect of insecticide granules in the plug stage on plant quality and sciarid fly control in finished plants Final report 2001	PC 182	Composting of organic wastes to produce a peat replacement substrate for herb production Final report 2003
PC 160	Protected crops: optimising the use of abamectin within IPM programmes Final report 2000 Factsheet 18/00	PC 183	The development of a training program to improve the use of climate control computers by protected crop growers in the UK Final report 2002

PC 187	Protected crops: assessment of glass cleaning practices and the development of best practice guidelines HDC News article 2006	PC 207	Protected ornamentals: improved guidelines for humidity measurement and control when using advanced climate control strategies Final report 2006 Factsheet 07/06 Factsheet 04/08
PC 188	A technical and economic appraisal of technologies and practices to improve the energy efficiency of protected salad crop production in the UK Final report 2003 Factsheet 04/08	PC 210	Protected herbs: best practice guidelines for integrated pest and disease control Year 1 Annual report 2004
PC 188a	Enhancing the performance of temperature integrating climate control strategies - a commercial demonstration Final report 2004 Factsheet 04/08	PC 213	Protected stock: aspects of the biology and control of Fusarium wilt, a new disease problem Final report 2006
PC 190	Investigation into the potential savings available from adopting energy optimization principles in UK glasshouse production Final report 2002 (Pot mums) Final report 2003 (Poinsettia) Factsheet 07/06	PC 216	Derivation of an energy efficiency analysis method for protected horticulture Final report 2005
PC 197	A demonstration of the use of advanced greenhouse environmental controls for ornamental crop production in the UK Final report 2003	PC 217	Improving the efficiency of labour use in tomato production – developing best practice Final report 2006
PC 198	An investigation into the performance of modern designs of thermal screens when used in protected edible crop production Final report 2006 Factsheet 04/08	PC 219	Risk Assessment and chemical ecology of red lily beetle Final report 2007
PC 198a	The use of thermal screens for energy saving and greenhouse climate management in protected edible production – performance optimization Final report 2006 Factsheet 04/08	PC 221	Developing novel approaches to the sustainable production of ornamentals in the UK – HDC Research Fellowship Final report 2006
PC 206	Maximising energy saving in the production of protected ornamentals using temperature integration: the conflict with humidity control Final report 2006	PC 226	Scoping study on air movement and CO2 use efficiency in protected crops Final report 2005
		PC 233	Energy optimisation in European greenhouses (Greenery) – EU funded project New project – awaiting first report
		PC 237	The use of supplementary lighting in protected ornamentals and edible crops: beyond maximisation of biomass Final report 2006

PC 239	Protected herbs, ornamentals and celery: development of an on-nursery rearing system for <i>Atheta coriaria</i> for reduced cost biological Year 1 report 2006 Year 2 report 2007	PC 267	Collaborative research programme in partnership with Saxon State Institute for Agriculture, Pillnitz, Germany for the development of 'new' ornamental plants for early season sales. Part II: Scheduled production and quality improvement Final report 2007
PC 245	Protected Salads: Effect of spectrally modifying plastics on the harvest nitrate content of baby leaf and lettuce Final report 2007	PC 277	Protected Ornamentals: Investigation of Fungal Pathogens Infecting Larvae of Sciarid and Shore Flies Final report 2007
PC 248	Investigation in to the decline curve of a range of pesticides under glass Final report 2006	PC 278	The development & commercial demonstration of ducted air systems for glasshouse environmental control New project – awaiting first report
PC 252	Protected ornamentals: detection, prevalence and control of seed-borne diseases Year 1 report 2006	PC 280	Protected Crops: A desk study to identify key gaps and to seek solutions to replace and fungicide carbendazim for the control of various pathogens New project – awaiting first report
PC 254	Phytotoxicity testing of new pesticides as Dip treatments to unrooted ornamental cuttings; in order to remove or reduce the risk of <i>Bemisia tabaci</i> infestation Final report 2007	PC/FV 135	Lettuce: a non-toxic crop protection system for lettuce (and other vegetable crops) Final report 1993
PC 256	An initial investigation into the potential for using sealed greenhouse technologies in the UK Final report 2007 Factsheet 04/08	PC/HNS 58	Rapid diagnostic tests for root and stem base pathogens on protected crops and hardy nursery stock Final report 1993
PC 259	Effects of variety and growth conditions on shelf life and appearance of pot and field-grown coriander Year 1 report 2007	PC/HNS 121	Integrated chemical and environmental control of grey mould (<i>Botrytis cinerea</i>) in protected container-grown ornamentals Final report 2002 Factsheets 23/02, 24/02 & 25/02
PC 264	Electronic noses as a tool for providing real-time information on crop pests and diseases in protected cropping Final report 2007	PC/HNS 202	Review of IT system requirements for the HNS and ornamentals industry Final report 2004
PC 265	An investigation into the technical and financial viability of biomass heating systems for greenhouse horticulture in the UK Final report 2006 Factsheet 04/08	PC/HNS 255	Biobeds: The safe disposal and treatment of pesticide waste and washings Year 1 report 2006

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