

## Dr Alan P Legge

<b>Qualifications</b>	Chartered Biologist B.Sc. with First Class Honours in Horticultural Science (University of Bath) Ph.D. University of Bath (External Post-Graduate)
<b>Affiliations</b>	Member of the Society of Biology Member of the Institute of Horticulture Member of the Intl. Society for Horticultural Science
<b>Voluntary Service</b>	Judge, National Soft Fruit & Cherry Show (1986 – 2004) Member of the Governors Horticultural Consultative Committee of Hadlow College of Agriculture and Horticulture (1989-1997) Member of the Technical Committee, the Fresh Produce Consortium (1989 – 2002) Member of the Agricultural Training Committee for Kent (1975-986) Director, COLEACP (1996 – 2003) Visiting Fellow in Post-Harvest Technology, Cranfield University 2000 -2009 Food Group Member, Ethical Trade Initiative, Member (2001-2003)
<b>Awards</b>	Blackmore & Langdon Prize for Best Student in Horticulture (1970)
<b>Languages</b>	French and Spanish; competent for Fieldwork
<b>Date of Birth</b>	27 July 1944
<b>Nationality</b>	British

## **Current Positions**

Freelance supply chain consultant, but with the following positions:

Senior Consultant, CWA International Consultancy Services: Expert on harvest and post harvest systems of temperate & tropical horticultural crops, extensive experience of all aspects of crop cultivation, storage, handling, transportation, pre-packing and retailing. Cargo surveys, reports, survey report analysis and expert witness work.

External Consultant- Farmers Services' Centre, Abu Dhabi: Supplying expertise on, produce packing, food safety, sustainable horticulture and market surveys

Horticultural Specialist for Project Chrysalis working as part of the URS Corporation / Foster Partners / Promar International Ltd Team for the redevelopment of New Covent Garden Market, London.

Horticultural Specialist for the Appraisal Project to establish a new National Wholesale Fruit & Vegetable Market for the City Council of Nairobi

## **Specific Expertise and Experience**

- Fresh produce cargo surveys, reports, survey report analysis and appearing as an Expert Witness at Court and in Tribunals/Arbitration Proceedings in the U.K., France and being Deposed in the U.S.A.
- Very broad and deep practical experience of every part of the banana production chain (growing, packing, transport, ripening and retailing) from 14 countries and territories to the U.K.
- A long, practical experience in the area of crop growing, harvest and post harvest systems of a very broad range of horticultural crops, ensuring the best possible quality and condition delivered via a dedicated and thoughtfully considered supply chain to the desired market whilst ensuring compliance with 'Due Diligence' and meeting customers' written specifications.
- In conjunction with local staff, the creation of the documentation and systems that were necessary to meet the requirements of HACCP, Global GAP and BRC.
- Ensuring that such systems are in line with current 'Best Practice' and met the requirements of the leading European retailers whilst being fully compatible in ethical trading terms with the social and economic circumstances and aims of the originating company, region or country. Many of these systems were created from scratch and continue to successfully trade in their chosen markets.

- Strong experience of setting up sustainable market chains.
- Strong logistics knowledge.
- Strong experience of the needs of retailers and consumers.
- Ability to create and deliver bespoke training courses in all aspects of produce production, handling, retailing and fresh produce safety.

### **Banana Specialist Experience**

As Technical Manager for Sainsburys, I overhauled the specification and retailing of bananas, significantly improving the quality on display, and the sales. At that time Sainsburys were the leading supermarket in the U.K.

In 1991 both Sainsburys and Safeway approached Mack to request that it become a banana importer and ripener. I was charged with the role of establishing a highly controlled supply chain, from the choice of farms with the best pest/disease, soils and management systems, through the harvest and post-harvest systems and packaging. I was fully involved in the logistics from the farms through to delivery to our ripening centres in the U.K. The replanting of farms presented the opportunity for me to ensure that the latest soil and water management/irrigation techniques were used, and that the best available clones of micro-propagated 'Cavendish' were sourced (usually from South Africa or Israel) and grown on in shade houses on site. I was also involved in establishing the protocols to cover the chain from the farm, through the ports to the shipping systems.

Initially, Martinique, Guadeloupe and the Cote d'Ivoire were the source countries. Later I set up supply sources in Ecuador, Mexico, Costa Rica, Panama and the Cameroon.

In the Dominican Republic I formed an Export Association of fifteen small growers and a Fairtrade banana group. From the same island, in 1998 I developed the first supply chain of organic bananas to the U.K. which required long periods of attendance in the field to achieve consistent quality of product.

At Mack I was responsible for the technical management and training of the staff of three banana ripening centres, and for innovations to keep Mack in the forefront of U.K. banana sales.

I developed the 60 x 40cm. display box for bananas, in the teeth of perceived wisdom of the industry. I introduced the concept of 'bespoke' packing of bananas for a specific customer from specific pack houses. Mack became the first supplier of own label bananas to any supermarket (in this case Safeway). This level of sophistication was only possible with total management entire supply chain.

Retail packaging was revolutionised by my introduction of a 'long-life' retail bag for bananas in 2000, after three years of joint development with a polymer manufacturer. This innovation doubled the shelf-life of ripe bananas from two days to four days.

I have spent long periods working to improve banana plantations, and product quality in: Cameroon, Canary Isles, Colombia, Costa Rica, Cote d'Ivoire, Ecuador, Ghana, Guadeloupe, Malaysia, Martinique, Mexico, Panama, St. Lucia and the Yemen, and so have acquired the knowledge and skill of being able to work with the smallest scale growers to extensive plantations of several thousand hectares. During the period when I organised all of the supply chain from farm to retail display, 1991 – 2002, Mack came from nowhere to joint third largest U.K. importer/ripeners/distributor of bananas in the U.K.

I have set up and delivered training courses in the handling, shipping, storing, and ripening of bananas to both shipping companies and retailers' staffs.

## Summary of Previous Employment

**October 2002-present**

**Self-employed Consultant**

Work undertaken on:

- Transit/packaging/handling problems, as a Senior Consultant with CWA International Ltd – bananas, citrus, lychees, grapes, stone fruit, mangoes and tomatoes
- Expert Witness in Fresh Produce cases for CWA International
- Developing the potential of the Mozambique horticultural industry
- Investigation and Analysis of the Madagascar Lychee industry, on behalf of Underwriting Syndicates
- Modified atmosphere packaging for fresh produce
- Consultancy work for the World Bank – Egypt, Jordan and Morocco small & medium farmer husbandry, export and marketing development, including involvement from 2001-2007 in the HEPTT Project, as Horticultural and Marketing Consultant
- Horticultural Specialist for Project Chrysalis working as part of the URS Corporation/Foster Partners/ Promar International Ltd Team for the redevelopment of New Covent Garden Market
- Advisory work with African exporters, U.K. Govt. DFID Food Safety Programme – working with small scale growers, Zimbabwe, Uganda and Zambia.
- Marketing Study in the U.K. on behalf of DFID/Natural Resources Institute. Lead author on 'Production of Fresh Produce in Africa for Export to the U.K. - Mapping Supply Chains'
- Work for COLEACP in various African countries
- Director of Gateway to Growth, a not-for-profit organisation assisting small-scale growers reach developed markets

- Work for G2G with growers in Tanzania, connecting groups of small scale growers to the U.K. supermarkets.
- Mentor work, on behalf of NESTA, with the Sea Water Greenhouse Project.
- Transit temperature maintenance studies in Jordan, with Messrs. Colebrand.
- Lecturing in Australia and New Zealand on supply chain issues, E.U markets and legislation.
- Creation of a three level Food Safety/GAP Code of Practice for Mauritian growers, under E.U contract
- Analysis of E.U. fresh produce marketing companies – on behalf of The Taylor Group, Merchant Bank, Washington.
- Marketing Workshops, Nigeria , on behalf of First Produce (UK) and First Produce (Nigeria)
- Teaching work at the University of Greenwich on Small & Medium Enterprises and the Export Market & Supply Chain Issues.
- Retail Handling training undertaken with staff for Messrs Sainsburys Supermarkets.
- Lecturing on farm management for export crops and export requirements in Zambia, Mauritius, Australia, New Zealand, Nigeria, Colombia, Thailand.
- Core member of the InfraCo team undertaking the Appraisal for the proposal to establish a new National Wholesale Fruit & Vegetable Market for the City Council of Nairobi
- Lead External Consultant for Horticulture, GRM International, as managers of the Farmers Services Centre programme in Abu Dhabi,
- Organising and delivering training courses in Fresh Produce Shipping delivered to managers, Masters and Officers of shipping lines

**1987-2002**

**Mack Multiples, part of M & W Mack (now known as the Fresca Group)**  
Technical Director

Mack Multiples is the major part of the Fresca Group; the largest U.K. owned importer/Distributor of fresh produce in the U.K. Turnover in 2001-2002 was over £270 million. For quality assurance, and to ensure product safety, built up a team of 18 graduate technologists leading some 60 product managers and quality controllers.

**Duties / Responsibilities**

- The improvement of product at source and maintaining that high quality throughout the supply chain to the customer. As examples, created full systems of supply of grapes from Australia, India, Chile and Argentina, and citrus from Australia, Argentina and Uruguay.
- Creating complete post-harvest systems, covering harvesting, quality assurance, packaging and handling systems, with fruit, salad and vegetable crops to maintain quality and condition.
- A system of comprehensible specifications was written covering all Mack Products.

- Ensured that Mack Multiples met all the requirements of legislation, especially the “Due Diligence” requirements of the Food Safety Act (1990). HACCP systems set up for all products from all sources.
- Established on a professional footing the Quality Assurance Department, and has overseen its evolution into self contained groups focussing on individual products or product groups.
- Set up the ISO 9000:2000 Quality Assurance Programme that met the requirements of all of the leading UK Multiples. Created Environmental and Social/Ethical audits ahead of the customers and legal requirements for them. This system evolved into successfully meeting all of the requirements of both EUREP GAP at suppliers’ farms and the achievement of BRC Global Higher Standard for the Paddock Wood and Bishop’s Stortford sites.
- Established strong technical links overseas with Mack suppliers, including setting up Q.A schemes to permit direct delivery from Spanish/ French/ Italian pack houses to UK supermarket Regional Distribution Centres.
- Has identified and developed suppliers overseas to provide supermarket quality produce from diverse countries such as Greece, Turkey, Spain, Egypt, India, Argentina, Uruguay, Brazil, Dominican Republic, Ivory Coast etc.
- Developed a sound technical relationship between Mack and the relevant staff of the leading UK Multiples and represented Mack in a number of areas, such as Ethical Trading Initiative, COLEACP, Fresh Produce Consortium etc. (APL was asked to continue to represent Mack at the E.T.I and the COLEACP in 2003). Is fully proficient in the relevant cultural components, harvest and post-harvest systems for the following – bananas, pineapples, papaya, citrus, grape, lychees, strawberries, stone fruit, melons, beans, tomatoes, courgettes, cucumber, lettuce, peppers, aubergine, apples, pears, avocado and many other crops.
- During time with Mack, sales to supermarkets quintupled, taking Mack to the position of the largest U.K. owned produce marketing organisation. In 1998, developed a strong organic banana programme for the leading UK Multiples from the Dominican Republic. Packaging has been a key area - for example, between 1995 and 1997, developed and introduced the 60 x 40 display box for bananas, now being used internationally. In 2000, after 3 years of collaborative work, introduced the first M.A.P. retail bag for bananas, extending the retail sales life of ripe bananas from 2 days out to 4 days
- Lectures and seminars are regularly given to a wide range of audiences. In 2001, introduced Fairtrade bananas to Sainsburys.

**1984-1987**

**J Sainsbury Plc, UK Supermarket**  
Technical Manager, Salads & Fruit

Duties/ Responsibilities

- Provided technical support for JS Produce Buying Department for both Fruit and Salad crops and controlled the work of 12 technical staff.
- Drafted all relevant produce specifications.
- Ensured that all suppliers met the technical and hygiene requirements of JS and worked to an agreed technical and packaging development plan.
- Advised on all aspects of salads and fruit and deputised for the senior manager when required.
- Made many visits overseas to Suppliers to carry out audits and to encourage the improvement of quality at source, both in the product and handling systems/logistics.
- Reviewed developments in science and technology, raw materials, varieties and equipment, including visiting scientific establishments in various countries and advising possible application for produce technologists and buyers.

**1982-1984**

**East Malling Research Station**  
Deputy Head, Field Experiments Department

Duties / Responsibilities

- Controlled all husbandry activities of the plantation crops.
- Organised and monitored crop production programmes, herbicide programmes, tree mulching and fertiliser programmes. Conducted field experiments on soil sterilisation, herbicides, application machinery, growth regulators, foliar feeds and the use of polyacrylamides as soil adjuvants to reduce irrigation needs. Reorganised the structure of the harvest management and combined the research and commercial grading of fruit.
- Introduced and developed computer compatible instructions and records to establish the basis for up to date information on the complex use of agrochemicals at EMRS for the first time. This was not only an improved management tool, but a data bank facility for scientific staff.

**1974-1982**

**H Mount & Sons**

General Manager, Fruit Farming & Storage

Duties / Responsibilities

- General Manager of commercial tree fruit farm. Responsible for all aspects of organisation, husbandry and financial planning of the largest single block of tree fruit in the UK (400ha). Crops included apples, pears, plums, cherries, soft fruit and amenity trees.
- Supervised all cultivation and pruning operations. During the period farm staffing was rationalised from 118 to 54 whilst at the same time crop tonnage and quality was increased. Harvest staff numbered 320 at their peak weeks. Responsible for storage facilities as a profit centre including 5,000 tonnes of Controlled Atmosphere Stores and 3,000 tonnes Cold Stores, plus 1,000 tonnes of dry storage.
- Also responsible for the company's financial control and established and maintained a five year rolling development programme, liaising closely with the Company Accountants.

**1975**

**University of Bath**

Awarded PhD in 1975 for a thesis entitled "Artificial Supplementary Pollination of European Fruit Crops" This research covered both bee-aided and spray pollination of top and soft fruit.

**1970-1974**

**Ministry of Agriculture**

(On secondment to Long Ashton Research Station)  
Grade III, Advisory Officer

Duties / Responsibilities

- Horticultural Advisory Officer (ADAS), ministry of Agriculture, Fisheries and Food.
- Advised tree fruit farmers on all aspects of cultivation. Responsible for pollination advice given to fruit farmers. Seconded to Long Ashton Research Station to work on problems of fruit set in UK.

**1961-1966**

**Long Ashton Research Station**

Scientific Assistant

Duties / Responsibilities

- Worked on the development of orchard sprayer and spray programmes to combat red spider mite on fruit trees.
- Monitored orchard fauna under different spray regimes and developed simple bioassay techniques to quantify spray deposits on apple leaves.



**Countries/Territories in which Dr. Legge has made working visits:**

Abu Dhabi	Argentina	Australia	Barbados	Belgium	Brazil
Cameroon	Canada	Canary Isles	Chile	China	Channel Isles
Colombia	Costa Rica	Cyprus	Denmark	Dominican Rep	Egypt
Ecuador	France	Germany	Greece	Ghana	Guadeloupe
Holland	India	Iran	Israel	Italy	Ivory Coast
Japan	Jordan	Kenya	South Korea	Libya	Malaysia
Madagascar	Martinique	Mauritius	Mexico	Morocco	Mozambique
New Zealand	Nigeria	Panama	Poland	Portugal	St Lucia
South Korea	Spain	Senegal	Switzerland	Tanzania	Thailand
Turkey	Trinidad	Uruguay	Uganda	Ukraine	U.S.A.
Venezuela	Yemen	Zambia	Zimbabwe	Ukraine	Russia

**Courses Undertaken / Training Attended**

1999	Environmental Auditing for Quality Auditors: 2 days at CCFRA
2000	Pesticides Revision Course 2 days: Tutor: David Godsmark
2001	ISO9000:2000 Q.M.S. Revision Course: Tutor: Peter Davis Food Industry Training, Reading
2001	HACCP for Fresh Produce: An Overview 1 day by CCFRA
2001	Ethical Auditing – 3 day Intertek Course at Loughborough University
2012	International Banana Congress, San Jose, Costa Rica