AUSTRALIAN AVOCADO GROWERS' FEDERATION INC.

Talking Avocados

- The Australian Newsline
Sixth Edition
May/June 1991

Dry Matter Partitioning of a Mature Avocado Tree (CV Fuerte)

By Tim Trochoulias
Tropical Fruit Research Station
NSW Agriculture & Fisheries,
ALSTONVILLE NSW

INTRODUCTION

Estimates of nutrient removal by avocado crops have been documented (Lahav and Kadman, 1980). There is little information on the dry matter distribution and nutrient composition of plant parts of a whole mature 'Fuerte' tree. Cameron *et al.* (1952) partitioned a 7 year-old ungrafted Mexican seedling. The opportunity was taken to partition an avocado tree which was being removed at the Tropical Fruit Research Station, Alstonville. The study describes the distribution of dry matter of above and below ground parts of a 13 year-old 'Fuerte' tree at full flowering.

MATERIALS AND METHODS

In September 1985 a 13 year-old bearing 'Fuerte' avocado tree in a block of 220 trees was surrounded by a 1.5m deep excavation trench dug with a backhoe. The tree was vigorous and healthy without any signs of Phytophthora root rot. Roots were washed clean with a high pressure hose to a depth of 90cm in $1m^2$ sections. It was estimated that 95% of roots were recovered. The whole tree was divided into 11 parts. Subsamples of 1 to 2 Kg of each part were dried for Dry Matter (DM) determinations. The tree's fresh fruit production ranged from 18.0 Kg in 1973 to 113.6 Kg in 1984 and averaged 87 Kg over the past 5 years.

RESULTS AND DISCUSSION

Dry matter distribution

The dry weight of each tree part is presented in Figure 1. About 80% of tree DM was above ground. The blossoms, leaves, green shoots and roots <1mm diameter which made up the previous season's growth represent almost 20% of the total DM which reached 478 Kg by the 13th year. The seasonal allocation for leaves and small twigs was similar to that found by Goldschmidt and Golomb (1982) in mandarins, although the total dry matter for their 15 year old trees was only 144 Kg. Over 30% of DM was concentrated in the scaffold limbs with only 2.1% in roots less than 3mm diameter. Wolstenholme (1985) has stated that roots of avocados are a weak photosynthate sink. These data indicate a very small DM content of small roots at full flowering prior to the spring root flush. The root turnover during a growing season in avocados is not known.

In a DM partitioning study of a 7 year-old ungrafted Mexican seedling Cameron *et al.* (1952) showed about 19% of the total DM was allocated to scaffold limbs and 24.4% to leaves. The proportion of DM in blossoms and small roots was similar to ours. It is likely that as trees age, more DM is allocated to large supporting limbs at the expense of leaves, as the canopy is photosynthetically active near the surface of the expanding sphere.

It is estimated that if this tree produced 100 Kg of fruit with a DM content of 25% the total DM allocated to reproductive structures would be 2.68% for blossoms and about 5% for fruit, a total of about 7.5% DM of the whole tree. Assuming a yield of 25 Kg DM the reproductive organs (blossoms and fruit excluding immature fruit drop) would make up about 30% of the annual DM allocated to leaves, green shoots and roots less than 3mm. The percentage allocated to reproductive organs would be less than 30% if it was possible to assess the annual DM allocated to support structures such as scaffold limbs, trunk and main roots.

ACKNOWLEDGMENTS

I wish to thank Ian Musgrave for technical assistance and Gary Lane for operating the backhoe.

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Lahav, E. and Kadman, A. (1980). Avocado fertilisation. IPI-Bulletin No. 6, Switzerland.

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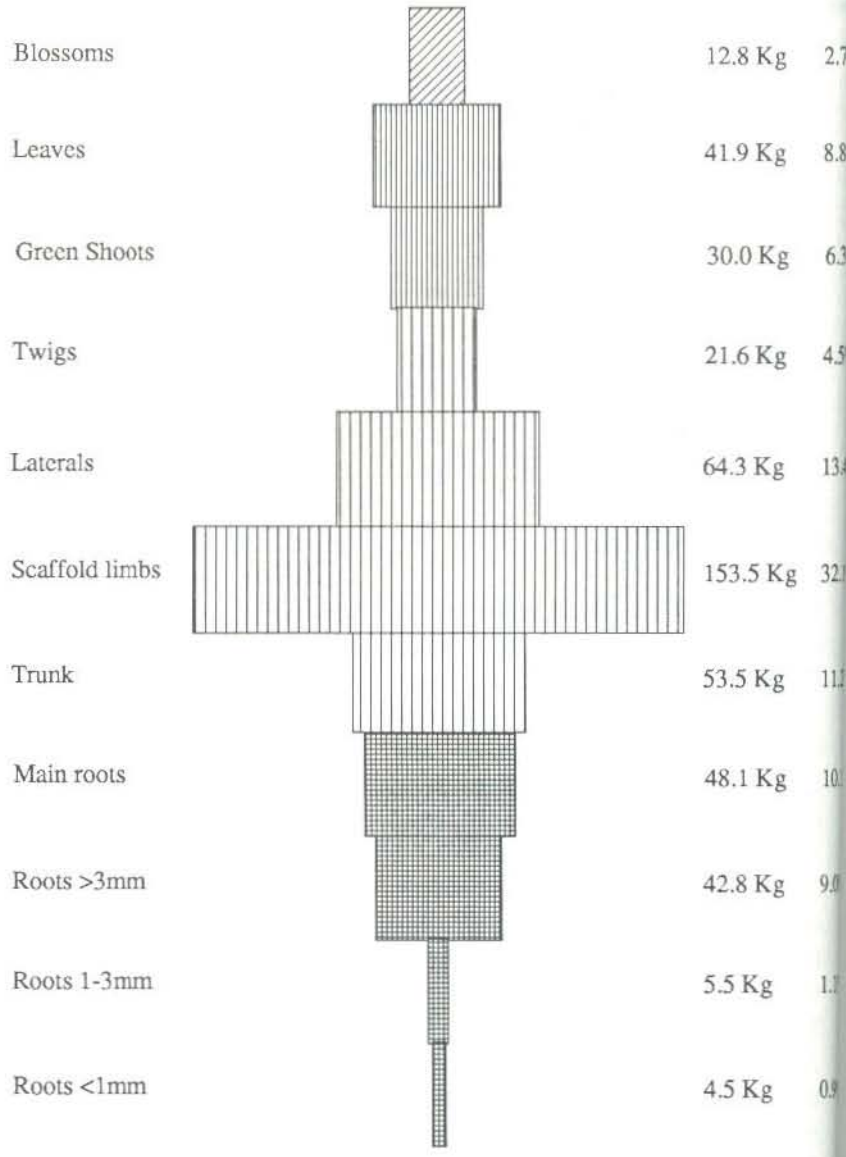
Figure 1
Dry Matter distribution in
"Fuerte" avocado tree parts.

Total Weight of Tree = 478.5 Kg



Keeping in Touch ....

HORTICULTURAL POLICY COUNCIL'S 1989-90 ANNUAL REPORT

Available for your information is a copy of the Council's Annual Report for the 1989-90 financial year.

The Council met four times during the year in Mareeba (North Qld), Perth (WA), Devonport (TAS) and Alstonville (North Coast, NSW) at which a number of important industry issues were considered.

Since the release of the Annual Report, the Council has produced a number of other major reports including a Review of Export Standards and Inspection Procedures, Import of Apples from New Zealand (Fire Blight Report), and the Council's Strategic Plan.

Other major issues currently under investigation by the Council which will be the subject of future reports include:

* The Impact of Fruit Flies on Australian Horticulture
* Horticultural Industry Statistics
* National Strategy for Horticulture
* National Horticultural Propagation Schemes

For more information about the publications referred to above or the Council's activities in general, please contact:

Mr. Greg Moore, Executive Director, GPO Box 858,
CANBERRA ACT 2601.
Telephone (06) 272 5457 or Facsimile (06) 273 4398

(The report is held by Ross Boyle at COD, Brisbane. It is quite interesting if anyone wants to read it.)

* * * * *

THINKING OF SPREADING GYPSUM?

The time and labour involved in spreading gypsum, organic fertilisers etc. is a constant source of hassle for many avocado growers. There are two types of Marshall spreader which may be suitable.

The 520 Series are basically a single spinner spreader with a 520mm wide conveyor belt. These are supplied with a 600mm single spinner as standard but can be supplied with twin 500mm spinners as an option. The single spinner version is particularly suitable if the material is required to be spread to one side of a row only. A deflector is available for this purpose. They will handle fertiliser, lime, gypsum and friable farm-yard manure.

The 800 Series machines feature an 820mm wide belt and feature twin 600mm spinners. They will spread virtually any material including feed-lot manure and will also calibrate down to 20 - 30 Kg/Ha of urea or granulated fertiliser.

The conveyor is positively driven, with a unique design incorporating a chain each side of the hopper joined by steel bars, to which the conveyor belt is attached. These bars run along bearers faced with nylon wear strips. This ensures that the conveyor will not stall, even after travelling long distances, over rough ground, with a full load. The conveyor belt cannot slip or wander. This type of conveyor is superior to a roller supported assembly and has proved to be trouble-free and long-lasting.

Standard spinner drive is by the tractor P.T.O. through vee belts.

The 520 Series 1.5 tonne, 2 tonne and 3 tonne machines feature a 520mm wide conveyor and are capable of spreading from 20 Kg/Ha of granular fertiliser up to 5 tonne/Ha of bulky lime, gypsum, manure, etc.

The 800 Series 3 tonne, 5 tonne and 8 tonne trailing units and 5 tonne, 8 tonne and 10 tonne truck-mounting units, feature an 820 mm side conveyor and can spread from 20 Kg/Ha up to 10 - 12 tonne/Ha.

Contact Eastern Spreaders, telephone (054) 50 3077 for any further information.

* * * * *

Industry Changes

Ross Boyle is no longer Executive Officer of the Avocado Sub-Committee of C.O.D.

Mr. Bryson Dyke who is Executive Officer of the Other Fruits Sectional Group Committee now has that position and his contact details are as follows:

Phone: (07) 379 0227
Fax: (07) 379 4174
Address: C.O.D., PO Box 19,
BRISBANE MARKETS
QLD 4106

Ross Boyle remains Secretary of the AAGF.

NEW INSPECTION REQUIREMENTS FOR IMPORTED FOODS AND BEVERAGES

Background

In september 1989, the Federal Government announced that new inspection procedures for imported foods were to be introduced progressively from 1 January 1990 with primary policy and operational responsibility for the national programme to be undertaken by the Australian Quarantine and Inspection Service (AQIS).

In assuming this responsibility, AQIS will be liaising closely with a range of Federal and State Government bodies who have conducted monitoring checks on imported foods in the past, in order to avoid duplication of effort and to minimise the costs of the programme.

Whilst AQIS will be primarily responsible for performing the inspection function, a specially appointed Imported Food Risks Advisory Committee will assist in the classification of all foods into one of three risk categories according to the risks they pose to human health.

The Advisory Committee comprises scientists, food technologists, representatives of State and Government bodies, consumers and importers. The Food and Beverage Importers Association has nominated Mr. Peter Hocking as its representative.

Importers wishing to contact the association should write to Mr. Tony Beaver at 114 Albert Road, South Melbourne or contact him by telephone on (03) 690 7600.

The New Programme

AQIS testing of foods subject to import control will be at the point of entry into Australia

* the level of testing will be determined by the risk categorisation of the food concerned (i.e. whether the food is classified as high, medium or low risk).

Foods which pose a serious or immediate threat to consumers will be subjected to intensive testing

* goods of this category may not be released for retail sale until analytical results are received.

Foods which are deemed to pose a less immediate risk to consumers will be tested at random

* goods of this category will be released from AQIS' control once samples have been drawn, provided adequate recall arrangements are in place.

* sampling plans will be based on internationally accepted attribute sampling plans; and

* adjustments to sampling rates will be made on the basis of test results.

Importers will be required to maintain close liaison with AQIS regional staff to request inspections of goods notified by Customs as being subject to AQIS' imported foods inspection clearance prior to release

* AQIS has sufficient trained inspectors available in all States to ensure that there are no delays in the taking of samples.

AQIS will be using the Australian Food Standards Code as the primary basis for its inspection requirements

* imported foods will be monitored to ensure compliance with requirements for labelling, additives, contaminants (both microbial and chemical, including maximum residue levels), compositional standards etc, where these have implications for the protection of human health.

Importers are advised to ensure that imported foods comply with the requirements of the Code or risk being denied entry of their goods or face delays while identified deficiencies are corrected.

Costs and Charges

The Government has directed that the cost of inspection and analysis of foodstuffs will be fully recoverable under fee-for-service arrangements.

Inspection fees will be payable for each half hour of chargeable activity (i.e. for time actually spent on site collecting samples, preparing documentation etc).

The actual rate will be determined shortly and will be subject to further review in September 1990 when AQIS will have a better picture of the extent of the programme, the frequency of inspections and so on.

In addition to the costs of actual inspection, the full costs of all analytical testing undertaken by AGAL or other approved laboratories will be payable by the importer or agent.

Australian Quarantine and Inspection Service Charges 1991/92

TO ALL EXPORTERS OF FRESH FRUIT AND VEGETABLES, CUT FLOWERS, NURSERY STOCK, AND NON-PRESCRIBED GRAINS:

Full cost recovery for services provided by the Australian Quarantine and Inspection Service (AQIS) was announced in the 1990 Federal Budget, and implemented from 1 January this year. The charges for 1991/92, will take effect from 1 July and will again be recovered at a rate of 100 per cent.

Comments on the revised charges:

The structure of charges for inspection of these commodities has been modified in order to more equitably spread cost recovery for these products, particularly in relation to infrastructure charges. Accordingly, charges for establishment registration and specific documentation are being introduced. A review of horticultural inspection procedures, which is currently being undertaken, is expected to be completed shortly. This review has specifically focused on the continued involvement of AQIS in inspection related to quality, grade and condition, and the responsibility of AQIS for phytosanitary certification.

The half-hourly field inspection charge has risen from $65 to $72, an increase of 10 per cent. In-office inspection charges have not changed.

The National Residue Survey (NRS) fee for food products is no longer applicable.

The new annual establishment registration charge of $150 will apply to any establishment where inspection of product is required.

Documentation charges of $20 each for export permits and phytosanitary certificates, and $55 for certificates of condition, will apply from 1 July.

However, in the case of phytosanitary certificates, the charge will be waived if a charge is made for an export permit. In the case of certificates of condition - as these are not a Government to Government document - an export permit charge, as well as a charge for the certificate of condition, will apply. In the case of phytosanitary and certificate of condition inspection, fee-for-service charges will be applied over and above any certificate charge.

Any queries or comments on the revised charges will be answered, toll free, on 008 020617. Other general enquiries should continue to be directed to State Departments of Agriculture.

This is the growers paper and reflects their views and opinions; it does not necessarily represent the policies or views of the President, Committee or the members of the AAGF.

INCENTIVES NEEDED FOR EXPORT QUALITY MANAGEMENT SCHEMES

COD is urging the Australian Quarantine and Inspection Service (AQIS) to provide export inspection charge discounts to Queensland growers who act to introduce quality assurance programs.

General Manager - Industry Services, Mr. Bob Granger, said COD's call came as a result of AQIS's commitment to withdraw later this year from quality inspections of produce.

"COD agrees that quality inspections should be left to industry while AQIS should specialise in quarantine checks.

Quarantine inspections are important as they guarantee freedom from pests and disease. They are also pre-requisites for the continuation of exports to many countries of interest to Queensland growers including New Zealand, Papua New Guinea and Japan.

While AQIS's withdrawal from quality inspections will benefit growers exporting to countries such as Hong Kong and Singapore, there is major concern over the future pricing of quarantine inspections.

AQIS's is now charging 100% cost recovery on quarantine inspections.

Currently these charges stand at $130 an hour but this is to increase by over 10% to $144 an hour for 1991/92.

New charges of $150 a year for registering export premises and a further $20 - $55 for issuing certificates are also being introduced. There has already been some instances where AQIS inspection charges have exceeded the price of the produce.

COD is concerned that the increasing costs of quarantine inspections will act as a deterrent to export and there is an urgent need for the Federal Government to reconsider its cost recovery policy.

AQIS's emphasis on encouraging growers to introduce quality assurance programmes is comendable. Efforts to increase the number of these schemes would be given impetus by providing a financial incentive to industry such as lowering quality inspection costs.

"COD has raised its concerns with AQIS and will continue to press for the necessary changes," Mr. Granger said.

Any enquiries regarding contributions, articles or advertisements for *Talking Avocados* should be directed to:

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Talking Avocados
PO Box 1393 Townsville 4810
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QUALITY MANAGEMENT - MORE ACTIVITY HAPPENING

The Board of the Australian Horticultural Corporation (AHC), has accepted the recommendations of the Horticultural Policy Council, to facilitate the introduction of quality management systems by the horticultural industries as detailed in Council's recent Report to Mr. John Kerin, Minister for Primary Industries and Energy.

In anticipation that the Report will trigger sweeping changes to the existing export procedures, the AHC has taken the initiative by appointing Dr. Brian Stynes for a period of three months to work with industry and develop a framework for introducing appropriate quality management practices.

The main thrust of the programme to date has been to formulate guidelines for a national approach to quality management that can be adopted industry wide and command international credibility.

A proposal that the AHC act as an Accreditation Agency for industry groups that adopt quality management systems was supported by the Board at its recent meeting.

Furthermore, the Board resolved that the accreditation activities would be restricted to quality management systems that conformed with International Standards, and agreed that the use of a quality mark by accredited operators should be investigated. Exporters who express strong interest to participate in the Scheme, will be assisted by the AHC in developing their own quality management systems.

* * * * *

MAILBAG

Dear Mr. Boyle (Secretary - AAGF),

Thank you for your representations of 25 January 1991 advising of the AAGF's commitment to free and fair trade and its opposition to unfairly priced imports.

Increased competition from imported food products has been a topic widely reported in the press in recent months. It is important that these imports, or the threat of imports, be put into perspective.

Australian horticultural imports were valued at about $415 million in 1989-90 compared with exports of about $520 million. Australia is therefore a net exporter of horticultural products.

The Government understands concern at increasing competition from imports of food products. At the same time, as a major agricultural exporting nation, Australia has much to gain from the liberalisation of world trade and supports the need for a freer, less protected international trading environment. Australia cannot seriously seek the removal of trade

distorting subsidies and high tariffs in other countries without a similar system operating here.

Australia's prosperity derives largely from its ability to sell a broad range of primary and manufactured goods and services which we produce efficiently and competitively. It is also in the interest of Australian consumers to take advantage of the ability of other countries to offer quality goods that are produced efficiently and priced competitively.

Trade therefore is not a one-way street and we cannot expect other countries to buy our goods and services unless we are prepared to implement a fair and open import regime. Market intervention measures isolate producers from market realities and lead to distortions in world prices, a misallocation of resources and increased costs for consumers.

However, the Government is mindful that Australian industries should not be subject to unfair market competition from imports. To address this issue, the Government has in place anti-dumping legislation to protect Australian producers from unfair market competition from goods imported into Australia at less than the normal value in their country of origin, and goods subsidised by exporting countries. Following discussions I have had with the Minister for Industry, Technology and Commerce, the current anti-dumping arrangements are being reviewed to ensure their continued effectiveness. If industry believes that imports are entering Australia at unfair prices and are causing injury to the Australian industry, it may have recourse to measures under Australia's anti-dumping legislation.

Government initiatives, including general tariff reductions, the redirection of scientific research, development effort, and business taxation reforms, will help the agricultural sector to increase efficiency and compete more effectively in an internationally competitive environment. In addition, there are a range of programmes targeted directly at agriculture which help farmers to adjust to changed capabilities. These include the Rural Adjustment Scheme, the Innovative Agricultural Marketing Programme, the Marketing Skills Programme and the Rural Counselling Programme.

To assist Australian horticulture specifically, the Government in 1988 established three statutory horticultural bodies. The Horticultural Research and Development Corporation (HRDC) was established to foster efficient and competitive horticultural industries through research and development. The Australian Horticultural Corporation co-ordinates horticultural marketing and encourages and assists exports. The Horticultural Policy Council is the third of the bodies and it provides advice to the Government on policy matters relating to horticultural industries.

The Commonwealth Government believes that Australians have the right to be fully informed about the country of origin of the food they buy so that they can make informed choices about the products they purchase. Standards for food labelling are administered by the States and Territories. The Minister for Consumer Affairs,

Senator Michael Tate, recently passed a recommendation to relevant State and Territory Ministers to require that juice products containing imported ingredients be labelled as such. The Commonwealth has also requested all State Health Ministers to support compulsory country of origin labelling on a wide range of unpacked food displayed for sale.

Current regulations already require country of origin labelling on all processed and packaged food products. Senator Tate has asked the Trade Practices Commission to examine whether some current labelling might mislead or deceive consumers as to the country of origin. Encouraging Australian business and consumers to purchase local products has been Commonwealth Government policy for some time.

The combination of these actions will enhance the long term viability of Australia's agricultural industries and ensure that our natural resources are utilised in a way which will maximise benefits to society. The structural changes resulting will also help to ensure that the costs of agricultural products are minimised for domestic consumers and that industries remain as internationally competitive as possible.

Your sincerely,

John Kerin,
Minister for Primary Industries and Energy (April, 1991)

* * * * *

FUTURE POLICIES FOR THE EXPORT OF HORTICULTURAL PRODUCE

Tony Bardsley
Chairman,
Horticultural Policy Council

The Horticultural Policy Council has now completed its review of government involvement in horticultural export standards and inspection and appropriate policies for the future.

The Council's decision to undertake the review was prompted in part by the increase in the level of cost recovery for the export inspection of horticultural product in July 1988 and, by recognition that despite the level of government regulation in this area, exports of Australian fresh fruit and vegetables generally do not enjoy a reputation for quality and consistency in overseas markets comparable with that of Australia's main competitors. It was also recognised that the future growth and development of the Australian horticultural industry would be highly dependent on exports and that for these to be maintained (and enhanced) the current quality performance of horticultural export produce, particularly fresh fruit and vegetables, would require substantial improvement.

The Council considers that there is likely to be little benefit to the overall export quality performance of fresh fruits and vegetables by maintaining the present regulated inspection system. Indeed it believes that whilst it is in place much needed change on the part of many operators within the industry may be forestalled as it tends to provide a prop to those not seriously committed to export as a priority market and may obscure market realities and penalties for continuing poor performance. Inspection to ascertain compliance for quality and condition attributes is not seen as a necessary role for government but is regarded by the Council as a commercial matter, between buyer and seller, and should be driven by the market, not by regulation.

There is a pressing need for many sectors of the industry to adopt a more professional approach to export and to take a long-term perspective in their operation rather than be content with short term gains - an opportunistic approach. However, the Council believes that industry will generally not change its attitude to the quality servicing of export markets and accept responsibility to lift its performance in respect of quality of outturn while it is left to government to ensure that exporters comply with minimum export quality standards. The Council considers that the most appropriate means of improving the quality performance of Australian horticultural exports is through the active encouragement of industry to take a long term perspective with respect to exports by the adoption (on a voluntary basis) of a total quality management approach to the production, preparation and export of horticultural produce. The Council believes that if the proposed total quality management approach for export horticultural produce is introduced by industry along the lines indicated, providing overall attitudes to servicing export markets change, it will achieve the primary objective of improving the performance of Australian horticultural produce exports in meeting market requirements for quality and condition. It will also help to build a sound quality reputation for Australian product and thereby provide the opportunity for expanded market penetration and at the same time reduce the need for government intervention.

BUYER'S GUIDE FOR AVOCADO TREES

B.J. Durand
Citrus and Subtropical Fruit Research Institute,
Nelspruit, South Africa

Success in the avocado industry begins in the nursery. Therefore, the quality of the trees grown by the nurseryman will determine whether the trees will perform well after they have been planted. Trees that received poor or incorrect treatment in the nursery will lag behind in the orchard, no matter how carefully the buyer tends them, and may easily die. This leaflet outlines the assessment of a nursery tree by inspecting the following: container and root development, growth medium, foliage, internodes and graft union.

Container and root development

The size of the containers in which the plants are grown is an important factor in the culture of nursery trees. The smaller the container, the greater care will be needed after planting out the trees in the field to ensure their survival. The larger the container, the better the root system will have developed and the more successfully the tree can be established.

A grower who intends to buy trees, should buy a number of trees from a nursery and examine the root development in the container, as the root system is critical to the future development of the tree. A poorly developed root system is an indication of wrong nursery practices. Three aspects of root development should receive attention:

* Overall root development
* Root distribution in the bag - i.e. uniform, top to bottom
* Presence and health of fine, white feeder roots.

If a tree has a poor root system it will never grow well or produce high yields, no matter how well it is treated. The presence of white root tips and well branched secondary roots are indicative of a healthy root system. Roots with black, or dark-brown lesions behind the white tips and along the secondary roots, may have suffered fungal infection. However, not all lesions are caused by fungal infection. Where the black plastic of the planting bag has been exposed to direct sunlight, extensive damage to the roots due to temperature build-up on the side of the bag can be expected.

The thickness of the plastic used for the planting bags should also be inspected. Plastic bags made of too thin material tend to split during transport.

Growth Medium

Growth mediums also play an important part in the production of high-quality trees. A clay soil mixture tends to clog the drainage holes in plastic containers. Lighter soil mixtures not only improve drainage, but also stimulate the development of the root system. Mixtures that are too light, on the other hand, are subject to the soil being washed out through the drainage holes, resulting in exposure of the roots.

Correct watering of newly planted avocado trees with a very light-textured growth medium is very important. Trees should be planted in basins and the use of alternative irrigation methods should not commence until after the trees have become established.

If the surrounding soil is heavier than the growth medium it will extract moisture from the lighter growing medium and may cause trees to die of drought, even in a relatively moist soil. Different growth mediums are used by nurserymen and inspection of the root system will indicate whether the growth medium that was used is acceptable.

Foliage

The foliage of a tree is one indicator of its quality. A healthy, glossy, dark-green colour is normal. Any deformed or discoloured leaves are an indication that the tree has not grown normally during the nursery period. It may also be an indication of a diseased tree. The leaves must also be inspected for the presence of insect pests and any deficiency symptoms.

Internodes

A vigorously growing tree has long internodes. These are good indicators of a tree's health. The internode is the stem portion between successive leaves. Lankiness in trees is an indication that the trees were grown under excessively crowded and/or shaded conditions. These trees are more prone to sunburn in the field, because too much of the stem is exposed to direct sunlight, without the benefit of partial shading by a good leaf distribution along the stem. Nurserymen who care about their product, will have the exposed stem white-washed with a PVA paint to prevent sunburn during transportation and planting.

Graft Union

Any graft union that exhibits excessive thickening at the union, or large differences between rootstock and scion thickness, indicates incompatibility, a poor rootstock or a diseased scion. A first-grade tree should exhibit a smooth union, with few or no irregularities on the stem, either above or below the graft union.

(Taken from Farming in South Africa - Pamphlet Series).

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DID YOU KNOW?

AVOCADO GRADE STANDARDS

D.F. Hocking
Director,
Plant Regulatory Services, NSWDA

The requirement to show size on cartons in New South Wales applies to many fruits - not just avocados - and the reason is that package sizes have been de-regulated and in time we could see a range of packages being used to market some fruits. At present avocados are packed almost entirely in the 'standard' size tray carton and growers, agents or retailers know when they buy count 18 that they will get fruit of a particular size. In the future this may not apply and with a range of packages of different shapes and sizes the count will not reflect fruit size and therefore count and size will be important.

We see this change to show size as being a gradual thing but in the interim provided growers show count or size or mass they will not be penalised.

Our main concern when inspecting fruit will be maturity, soundness, conformity to the class (grade) shown on the package and major trade description deficiencies.

I trust this will clarify the situation for those involved in marketing avocados in New South Wales.

* * * * *

ATTAINABLE GOALS FOR AVOCADO RESEARCH AND DEVELOPMENT

To be held on -
13, 14, 15th August, 1991

The Australian Avocado Growers' Federation with the support of the Horticultural Research and Development Corporation (HRDC) has initiated a three day workshop to focus on future research and development needs, plans and programs for the Australian Avocado industry.

The AAGF has made a commitment to join the HRDC and adopt the system of a national Research and Development (R&D) levy administered by HRDC on behalf of industry according to the priorities established by industry. These priorities will be determined at a two day workshop organised by HRDC, involving industry delegates nominated by the Federation. During these two days professional facilitators will assist industry delegates define their goals and decide how these goals might be achieved. Part of this process is the generation of a priority listing of R&D which is necessary to advance the industry to where it would like to be in five years time.

The day three workshop is seen as a logical extension of this process where research and extension specialists meet with key industry representatives to review recent R&D and plan future strategies in light of the direction and priorities identified in days one and two.

The programme for day three will involve short presentations by key personnel to bring delegates up to date on recent and current R&D, followed by a report from the Federation and HRDC on the outcome, goals and priorities established during the HRDC workshop (days one and two). This will be followed by a session on the critical issue of the future R&D programme in light of the established priorities, personnel, skills and facilities of research institutions.

THE FEDERATION

SECRETARY:
Ross Boyle, P.O. Box 19,
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Delegates who represent the member states on the parent body, the Australian Avocado Growers Federation (AAGF) are as follows:

PRESIDENT:
David Rankine Ph (075) 45 1046

VICE PRESIDENT:
Ross Richards Ph (085) 85 3178

CHAIRMAN, VARIETIES COMMITTEE:
Don Lavers Ph (070) 93 3773

QUEENSLAND:
Dick Armstrong, David Rankine, Don Lavers, Brian Capamagian

NEW SOUTH WALES:
Warren Meredith, Robert Mosse, Keith Johnson, George Gordon

VICTORIA (Sunraysia):
Marion Matthews Ph (050) 29 1576

SOUTH AUSTRALIA:
Ross Richards Ph (085) 85 3178

WEST AUSTRALIA:
John Galatis Ph (09) 525 2066

The Effect of Substitution of Dietary Saturated Fat Fat Sources with Avocados on Risk Factors for the Development of Coronary Heart Disease

(Joint project - Food Research and Technology Branch, Q.D.P.I. and Wesley Hospital; Funded by COD)

By Shawn Somerset

Avocados have long been thought to be a food to avoid when trying to lower blood cholesterol, because they have a high fat content compared to other fruits. However, avocados are rich in oleic acid, which has been recognised as it is the key to the health benefits of olive oil. This study, conducted in collaboration with cardiologist David Colquhoun and dietitian Denise Moores from Wesley Hospital, compared the effects of two diets on 15 healthy volunteers. One diet was low in fat (20 to 25% total energy as fat) and the other was an avocado-enriched diet (30 to 35% fat) with 10 to 15% of total energy derived from avocados.

Only the avocado-enriched diet significantly lowered plasma total cholesterol when compared to the pre-entry diet. Whilst the low-fat diet led to a decrease in high density lipoprotein cholesterol, the avocado-enriched diet maintained baseline levels. These results are consistent with similar recent dietary studies on olive oil and indicate that avocados are an appropriate food to include in a cholesterol-lowering diet, particularly when they are used in place of foods high in saturated fat. It is important to note that this effect is likely to be due to the fatty acid profile rather than the absence of cholesterol in avocados.

(Taken from the Q.D.P.I. Annual Report 1989/90)

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DID YOU KNOW?

NATURAL AVOCADO OIL PRODUCTION

The avocado is normally eaten as a fresh fruit, however, there are other uses for this product. Firstly, there were the cold pressed oils produced in Australia. Then there was the first cholesterol free cheese, and now Proteco Pty Ltd of Kingaroy has come up with "Natural Avocado Oil". Fruit for processing is being supplied by the Sunshine Coast Fruit Growers Co-operative at Nambour and Golden Mile Orchard at Mundubbera.

The whole of the fruit is being used - skin, flesh and seed, with the main requirement being that the fruit must be mature. Each avocado renders about 12% oil.

The current market for the oil is about eight tonnes per annum which means that 100 tonnes of avocados need to be processed.

The oil can be used cold as a salad dressing but its main use is in the cosmetic industry. Oils produced overseas are deodorised and bleached whereas this new product is a natural oil, dark green in colour and costs only half that of imported oils.

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NURSERY INSPECTIONS

Applicants for ANVAS nursery status in 1991 have all been inspected and reports provided by QDPI personnel.

The nurseries accredited are:

Rainforest Nursery, Mareeba
Birdwood Nursery, Woombye
Batsons's Nursery, Woombye
Yanagin Nursery, Morayfield

Anderson's Nursery is awaiting accreditation pending paperwork being completed by NSW Department of Agriculture.

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