Section III
Biological and Cultural Control

INTEGRATED CONTROL OF BROCCOLI AND AVOCADO PESTS IN NORTHERN ECUADOR AND THE IMPACT OF ECONOMIC AND CULTURAL FACTORS ON MANAGEMENT DECISIONS

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The concept of Integrated Pest Management is well understood by agronomists in Central and South America, however many small scale producers lack the education and motivation to implement the scouting necessary for IPM. . Those producers that have the skills to use IPM are often unwilling to take the risks involved with acting on economic thresholds. After experiencing numerous crop losses and economic shortfalls, most field agronomists working with small scale producers recommend a calendar spray program. Visits to the field on a weekly basis by technical staff are used to reinforce the need for crop protection and fertilization practices in sensitive, export quality row crops. See the following table for an example of a typical program for broccoli producers.

IPM is more practical in tree fruits such as avocados, due in part to the higher education levels of landowners and the relative lack of potential insect and disease pests that threaten the crop. Most of the technical efforts in USAID sponsored ProNorte project, were directed at obtaining proper irrigation techniques to prevent development of avocado root rot in virgin soils. Proper fertilization and handling of fruit during and after harvest are the second and third important factors in successful avocado production. The presence of a year round high-value market in nearby Columbia for the Hass avocado will ultimately lead to a substantial increase in the income level of many Ecuadorian avocado growers. The primary limitation on planting of new ground to Hass avocados is the lack of investment capital available to landowners and the reluctance of many producers to sell in international markets.

Aplicaciones en Brócoli - IMANTAG

Para: 10000 metros de Terreno Sr(a):_____

Dìas	Fecha	Actividad	Insumo	Cantidad	Unidades	Objetivo
15 días Antes		Preparar el suelo:	Rastra Cruzada	2	Rastras	Suelo flojo y fértil sin yerbas.
			Poner Gallinaza	120	Sacos	
			Poner Cal Agrícola	10	Sacos	
2 dias antes		Abonar para siembra:	Guachar / Surcar	1	Surcada	Para Riego
			18 - 46 - 0	100	Kilos	Abonar
			Nitrato de Amonio	100	Kilos	Abonar
			Borax	10	Kilos	Abonar
			Sulpomag	100	Kilos	Abonar
0 dias		Transplantar	Plantas de Brócoli	60	Gavetas	
		Transporte	Transporte Planta			
0 dias		Aplicar a chorro en la raíz:	Captan 80	50 gr	por Bomba	Pudrición de Tallo
			Raizal	40 gr	por Bomba	Enraizador
			Eco Hum (Ac.Húmicos)	40 cc	por Bomba	Materia Orgánica
			Cipermetrina	20 cc	por Bomba	Trozador
7 dias		Fumigar:	Captan 80	50 gr	por Bomba	Pudrición Tallo
			Diazol	20 cc	por Bomba	Mariposa-Pulgòn
			Merit Azul	50 cc	Por Bomba	Foliar
			Agrotín	10 cc	Por Bomba	Fijador
21 dias		Abonar:	Nitrato de Amonio	200	Kilos	Abonar
			Borax	10	Kilos	Abonar
			Sulpomag		Kilos	Abonar
			0 - 0 - 60 (Potasa)	100	Kilos	Abonar
21 dias		Fumigar:	Nitrofoska 30 10 10	50 gr	por Bomba	Foliar
			Kelatex Boro	20 gr	por Bomba	Foliar
			Agrotín	10 cc	por Bomba	Fijador
35 dias		Fumigar:	Nitrofoska 20-19-19	50 gr	por Bomba	Foliar
			Diazol	20 cc	por Bomba	Mariposa-Pulgòn
			Kelatex Boro	20 gr	por Bomba	Foliar
			Agrotín	10 cc	por Bomba	Fijador
45 dias		Abonar:	Nitrato de Amonio	300	Kilos	Abonar
			Borax	10	Kilos	Abonar
			Sulpomag		Kilos	Abonar
			0 - 0 - 60 (Potasa)	150	Kilos	Abonar
45 dias		Fumigación:	Diabolo	20 cc	por Bomba	Pulgon
			Endosulfán	20 cc	por Bomba	Plutella
			Nitrofoska 20-19-19	50 gr	por Bomba	Foliar
			Agrotín	10 cc	por Bomba	Fijador
55 dias		Fumigación:	Cipermetrina	10 cc	por Bomba	Pulgon-Plutella
			Nitrofoska 8-12-24	50 gr	por Bomba	Foliar
			Bioenergia	50 cc	por Bomba	Foliar
			Agrotín	10 cc	por Bomba	Fijador
57 días		Abono de corrección:	Nitrato de Amonio	100	Kilos	Fertilizar
70 dias		Transportar Cosecha:	Gavetas necesarias:	1150	Gavetas	

1 Cuchara sopera =	10 gr.	gramos
1 Cuchara sopera =	5 cc.	centimetros