# DAFFMinor Crop Stakeholders Workshop 2018

SANSOR Vegetable Seed Priorities

Seed Treatment Chemicals

## South African Vegetable Seed Industry

- Divided into
  - Professional Vegetable Producers (sales to commercial farmers)
  - Vegetable packet or hobby market (retail sales)

## Seed sales to Professional Vegetable Producers



## Vegetable Retail Packet - Hobby Market



## What is the Hobby Market?

- Vegetable, herb, flower and lawn grass seed sold in small quantities suitable for home gardeners.
- All the main seed companies involved in this sector have a very wide product range probably more than 300 products each.
- Seed is sold in pre-printed packets which typically illustrate the end product and also include planting instructions often in the form of a pictogramme.
- Some packet ranges include a best before date
- All include prescribed information: Kind, variety and lot number. Seed weight is usually not included as there is an exemption for seed sold to this segment.
- Seed quantities vary even within a specie because packet prices (rather than grams per packet) are consistent. Seed companies generally put a sensible quantity of seed in a packet, taking many factors into account.

#### Hobby – retail packet market

- Not all seed packets contain treated seed. A large percentage is untreated.
- The purpose of chemicals applied to seed in this segment is primarily to limit the effects of the pathogens causing damping off such as *Pythium* and *Rhizoctoni*a species.
- It is almost impossible to estimate the hectares planted since many packets are purchased with good intentions but which never actually get planted.
- Packing runs take economy of scale into account and are generally many thousands of packets.
- Empty packets are often printed in large quantities well ahead of time.
- Seed companies hold a lot of stock of both filled and empty packets.

## Vegetable Seed Market Size Measured in ZAR (as per SANSOR stats for 2016)

		Local			Grand Total					
	OP	F1	Total	ОР	F1	Total				
<b>Total Horticulture 2016</b>	249,370,000	671,960,000	921,330,000	126,814,000	92,082,000	218,896,000	1,140,226,000			
Packets only - Hobby										
Market	80,252,094	3,396,693	83,648,787	23,616,405	1,361,402	24,977,807	108,626,594			
Professional Growers	169,117,906	668,563,307	837,681,213	103,197,595	90,720,598	193,918,193	1,031,599,406			

### Pesticides currently used on all vegetable seed in RSA

Minor Crops		Active Ingredients for SEED TREATMENT									1			
Vegetables	Minor crop?	Active 1	Active 2	Active 3	Active 4	Active 5	Active 6	Active 7	Active 8	Active 9	Active 10	Active 11	Active 12	Active 13
All Herb Species	YES	thiram	Active 2	Active 3	Active 4	Active 3	Active	Active 7	Active 6	Active 3	Active 10	Active 11	Active 12	Active 13
Asparagus	YES	thiram												
Broad bean (Veg)	YES	thiram	mefenoxam											
Broccoli	YES	thiram	mefenoxam	iprodione						benomyl				
Cabbage (various)	YES	thiram	mefenoxam	iprodione					captab	benomyl				
Carrot	YES	thiram	mefenoxam	iprodione	boscalid						metalaxyl			
Cauliflower	YES	thiram	mefenoxam	iprodione										
Celery	YES	thiram	mefenoxam	iprodione										
Coriander	YES	thiram	mefenoxam											
Cowpea (Veg)	YES	thiram	mefenoxam											
Cucumber (various)	YES	thiram	mefenoxam		boscalid									
Curly Kale	YES	thiram	mefenoxam											
Eggplant/Brinjal	YES	thiram	mefenoxam											
Garden Bean	YES	thiram	mefenoxam											
Garden Beet	YES	thiram	mefenoxam											
Garden Pea	YES	thiram	mefenoxam											
Garden Radish	YES	thiram	mefenoxam											
Kohlrabi	YES	thiram	mefenoxam											
Leeks	YES	thiram	mefenoxam											
Lettuce (various)	YES	thiram	mefenoxam	iprodione	boscalid	PCAMX-D	PCSMD-D							
							azoxystrobi						dimethylthio-carbamoyl	
Onion	YES	thiram	mefenoxam	iprodione	boscalid	fludioxonil	n ´		captab	benomyl	metalaxyl	thiofanaat-methyl	disulphate	
Paprika	YES	thiram	mefenoxam											
Parsley	YES	thiram	mefenoxam											
Pepper (hot)	YES	thiram	mefenoxam		boscalid									
Pepper (sweet)	YES	thiram	mefenoxam		boscalid									
Pumpkin	YES	thiram	mefenoxam		boscalid									
Rape	YES	thiram	mefenoxam											
Spinach	YES	thiram	mefenoxam											
Spring Onion	YES	thiram	mefenoxam											
Squash (various)	YES	thiram	mefenoxam		boscalid									
Sweet Corn	YES	thiram	mefenoxam											
Sweet Melon	YES	thiram	mefenoxam		boscalid									
Swiss Chard	YES	thiram	mefenoxam											
Tomato (various)	YES	thiram	mefenoxam	iprodione	boscalid					benomyl				
Watermelon (various)	YES	thiram	mefenoxam		boscalid									
Dichondra	YES	thiram	mefenoxam											
Witlof	Yes			prodione										tefluthrine

## Comments on the range of chemicals used

- Seed for commercial farmers wider range of chemicals used.
- Seed for hobby / retail market thiram most common (almost the only chemical used currently)

# Factors to consider in relation to labelling in the vegetable seed industry

- A reasonable phase in period is required to facilitate a wording change on packets. In the case of the hobby market there are large stocks of both empty and filled packets throughout the supply chain.
- Not enough space on retail packets for too much wording
- Any changes to labelling requirements could be implemented on <u>new</u>
   <u>print runs</u> and on new packing operations without much delay,
   however a phase in period of at least 5 years would be required for all
   stock throughout the supply chain to be changed.
- The number of chemicals currently used is relatively small considering the wide range of vegetables sold.
- Note that the professional vegetable seed market is more flexible than the retail /hobby market in terms of changes to packaging since packing runs are much shorter and stock levels are lower.

TRADING		Local			Crowd Total			
Crop	OP F1		Total	OP	Export F1	Total	Grand Total	
Asparagus	16,000	8,000	24,000		2,000	2,000	26,000	
Bean green (garden)	33,931,501	-	33,931,501	7,398,942	-	7,398,942	41,330,443	
Bedding Plants	2,300,000	8,616,000	10,916,000	-	_	-	10,916,000	
Beet root	4,162,103	15,269,000	19,431,103	2,926,081	864,582	3,790,663	23,221,767	
Broad bean	68,000	-	68,000	2,000	-	2,000	70,000	
Broccoli	(3,906,000)	17,015,501	13,109,501	-	652,150	652,150	13,761,650	
Brussels Sprout	173,528	481,000	654,528			-	654,528	
Bunching onion	764,399	394,000	1,158,399	273,927		273,927	1,432,326	
Bunching onion (new cfc)	-	-	-			-	-	
Cabbage (various)	962,507	28,098,873	29,061,379	5,185,413	17,100,846	22,286,259	51,347,639	
Carrot	4,208,744	82,478,000	86,686,744	5,750,187	3,705,655	9,455,842	96,142,586	
Cauliflower	31,394	16,857,000	16,888,394	150,380	534,520	684,900	17,573,294	
Celery	(287,022)	838,000	550,978	68,000	-	68,000	618,978	
Coriander	2,729,000	374,000	3,103,000	471,000	-	471,000	3,574,000	
Cucumber (field)	790,202	2,241,997	3,032,199	1,875,904	147,000	2,022,904	5,055,103	
Cucumber (tunnel)	1,000	34,646,000	34,647,000	-	980,710	980,710	35,627,710	
Curly Kale / Borecole	338,126	49,000	387,126	496,614	-	496,614	883,740	
Cut Flowers	360,000	2,136,000	2,496,000	-		-	2,496,000	
Eggplant / Brinjal	208,761	1,123,000	1,331,761	234,839	25,899	260,738	1,592,500	
Flower (professional)	-	-	-	-	-	-	-	
Flowers (packets)	14,437,000	-	14,437,000	1,822,000	-	1,822,000	16,259,000	
Grass (professional)	9,538,000	_	9,538,000	1,627,000		1,627,000	11,165,000	
Kohlrabi	109,000	24,000	133,000	-		-	133,000	
Lawn (packets)	14,256,000	-	14,256,000	2,693,000		2,693,000	16,949,000	
Leek	2,372,000	267,000	2,639,000	5,066,854	_	5,066,854	7,705,854	
Lettuce (encrusted)	3,300,000	-	3,300,000	702,000	-	702,000	4,002,000	
Lettuce (naked)	1,497,126	-	1,497,126	1,534,009	_	1,534,009	3,031,135	
Lettuce (pelleted)	49,568,000	-	49,568,000	424,000	-	424,000	49,992,000	
Onion (Intermediate)	6,070,948	22,379,000	28,449,948	4,630,077	3,553,870	8,183,948	36,633,896	
Onion (Short day)	6,711,034	91,726,304	98,437,338	43,873,778	18,562,381	62,436,159	160,873,498	
Other horticultural crops	1,861,000	2,573,000	4,434,000	138,000	9,000	147,000	4,581,000	
Parsley	217,000	161,000	378,000	5,000	-	5,000	383,000	
Pea (garden)	5,667,231	-	5,667,231	906,915		906,915	6,574,146	
Pepper (hot)	1,185,325	4,631,791	5,817,115	111,599	1,195,274	1,306,873	7,123,988	
Pepper (paprika)	967,000	-	967,000			-	967,000	
Pepper (sweet)	1,475,607	60,540,000	62,015,607	2,852,445	1,389,544	4,241,990	66,257,597	
Pumpkin	1,155,738	18,716,999	19,872,737	365,836	6,101,766	6,467,602	26,340,339	
Radish (garden)	337,254	383,000	720,254	16,115	-	16,115	736,369	
Rape	941,167	-	941,167	2,323,452	9,000	2,332,452	3,273,619	
Spinach	463,052	5,540,585	6,003,637	174,865	65,678	240,543	6,244,179	
Squash (Butternut)	7,552,158	56,008,000	63,560,158	1,568,335	3,414,854	4,983,188	68,543,346	
Squash (Gem squash)	473,655	9,188,084	9,661,739	17,314	316,859	334,173	9,995,912	
Squash (Hubbard)	1,103,232	1,317,431	2,420,663	496	-	496	2,421,159	
Squash (Zucchini & patty pan)	199,000	21,629,863	21,828,863	54,000	5,803,279	5,857,279	27,686,142	
Sweet Corn	280,000	22,696,019	22,976,019	464,000	4,374,515	4,838,515	27,814,534	
Sweet Melon	29,037	17,515,000	17,544,037	19,949	325,000	344,949	17,888,986	
Swiss Chard	6,974,425	254,000	7,228,425	2,150,660	-	2,150,660	9,379,085	
Tomato (Determinate round)	4,223,828	11,815,397	16,039,224	2,082,968	4,128,758	6,211,726	22,250,950	
Tomato (Determinate saladette)	177,269	12,835,877	13,013,146	1,915,642	5,806,039	7,721,681	20,734,827	
Tomato (Indeterminate round)	84,000	53,696,000	53,780,000	154,000	4,265,792	4,419,792	58,199,792	
Tomato (Indeterminate saladette)	14,000	12,042,000	12,056,000		4,372,994	4,372,994	16,428,994	
Tomato (Novelty)	63,207	16,645,053	16,708,260	3,832	93,335	97,168	16,805,428	
Tomato (Processing)	27,000	2,033,000	2,060,000	2,885,394	554,653	3,440,047	5,500,047	
Veg & Herbs (packets)	51,559,094	3,396,693	54,955,787	19,101,405	1,361,402	20,462,807	75,418,594	
Watermelon (various)	2,664,235	13,293,000	15,957,235	2,123,608	2,361,311	4,484,919	20,442,154	
Total 2016	249,370,000	671,960,000	921,330,000	126,814,000	92,082,000	218,896,000	1,140,226,000	

## Wording used on packets for the hobby market & possible solutions

- "Chemically treated. Do not use these seeds for food, feed or processing"
- "Seed may be chemically treated. Do not use seeds for food, feed or processing."
- "Poison treated"
- "Thiram treated"
- Suggestion: substitute the work "chemically" for the appropriate active ingredient such as "Thiram"
- Phase in over reasonable period of time.
- Consider no change to hobby market current wording has served us well with no incidents ever recorded.
- In the Netherlands they simply print "not for consumption" on retail packets.
- As a precautionary measure make sure registration is in place for an alternate chemical (such as mefenoxam) for use in the hobby market in case thiram cant be used in future.