

# Foreign Agricultural Service

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## **New Zealand**

## **Planting Seeds**

## **Annual**

2002

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#### **Report Highlights:**

Poor weather, mainly heavy rains during December 2001-February 2002, will result in a much lower pasture seed and ryegrass harvest in 2001/02. Planted area was also down. In August 2001, the Government introduced new requirements for sweet corn seed imported for sowing. Consignments must be tested for GM material either before being shipped or at the border. By August 2002, the Government expects to expand the testing regulation or other controls to other planting seeds that could have a GM presence, including field corn and canola/rapeseed.

#### SECTION I. EXECUTIVE SUMMARY

Planting seed production for the 2001/02 seed cropping season will be down sharply as heavy rains in December 2001 and January-February 2002 cut yields and reduced quality (harvesting finished in March). Planting seed area was also down due to an oversupply of seed from last season which encouraged some farmers to plant cereals instead and competition from livestock.

Yields of white clover in 2001/02 will in particular be down sharply, possibly 60-70 percent, while ryegrass yields are estimated to fall 20-30 percent. Declines in area for clover and ryegrass will result in 2001/02 production falling even further.

The New Zealand seed industry continues to see a shift towards proprietary marketing with the main seed companies developing their own seed cultivars and contracting the growing out to arable farmers. In this way the companies are able to collect a royalty on their cultivars. The trend for growers and seed companies is a move away from commodity seed to more specialized varieties.

New Zealand's exports of seeds were 26,213 MT in 2000/01, worth US\$27.2 million FOB. The United States took roughly one fifth by volume of New Zealand's seed exports in 2000/01, predominantly ryegrass seed. Other key export markets for New Zealand seed include Australia, the Netherlands, Germany and South America.

New Zealand's seed imports were 8,315 MT in the 2000/01 season valued at US\$ 9.0 million CIF. The U.S. accounted for about one fourth of New Zealand's seed imports by volume, led by vegetable, field corn, and fescue seed.

MAF Regulatory Standards for the importation of seeds for sowing into New Zealand are available on the MAF website located at- http://www.maf.govt.nz.

U.S. market opportunities exist for proprietary forage grasses and niche turf applications, vegetables and grain seeds. U.S. exports of planting seeds to New Zealand in calendar 2001 rebounded 24 percent to US\$2.0 million (according to U.S. Customs data).

The New Zealand Government is continuing to review the possibility that conventional seeds imported into New Zealand for sowing could be inadvertently mixed with genetically modified (GM) varieties of those seeds, and whether current border controls are adequate. The Ministry for Agriculture and Forestry (MAF) plans to publish a discussion document on this subject in April 2002, including proposals to change the border controls for imported seeds. MAF will be seeking comments from industry and the public by June 2002 and will implement any necessary changes in border controls as quickly as possible after then. MAF in August 2001 required all imports of sweetcorn seed for planting to carry testing certification showing no GM presence (or be tested at the border). MAF is expected to extend the regulations or other controls to field corn and some oilseeds, especially canola/rapeseed for planting by August 2002 or January 2003.

## SECTION II. STATISTICAL TABLES

Source: Statistics New Zealand

N.Z. ALFALFA SEED T	KADE 2000/01	T		
	IMPORTS	EXPORTS		
Source/				
Destination	Kilograms	US\$CIF	Kilograms	US\$FOB
		000		000
U.S.	1,454	7	0	0
Australia	78,750	194	0	0
Other	0	0	3	13
Total	80,817	205	3	13
N.Z. CLOVER SEED TE	RADE 2000/01			
Source/	IMPORTS		EXPORTS	
<b>Destination</b>	Kilograms	US\$CIF	Kilograms	US\$FOB
		000		000
U.S.	695	6	327,570	569
Australia	142,911	210	225,739	409
U.K.	0	0	277,361	469
Netherlands	0	0	913,304	1,643
China	0	0	299,645	413
Germany	1,350	5	369,509	668
Japan	0	0	117,026	296
Other	11,225	39	1,230,646	1,917
Total	156,181	261	3,760,800	6,802
N.Z. FESCUE SEED TRA	ADE 2000/01			
Source/	IMPORTS		EXPORTS	
Destination	Kilograms	US\$CIF	Kilograms	US\$FOB
2 communi		000		000
U.S.	48,752	130	576,663	408
O.S. Australia	1,285	3	231,228	308
		151	113,413	74
Other Tadal	83,880		· i	
Total	133,917	285	921,304	791

N.Z. RYE GRASS SEED	TRADE 2000/01			
Source/	IMPORTS		EXPORTS	
<b>Destination</b>	Kilograms	US\$CIF	Kilograms	US\$FOB
	inogi umb	000	Timograms	000
U.S.	30,120	53	3,892,371	2,274
Australia	35,325	21	2,551,567	2,656
Chile	0	0	1,263,938	968
Canada	0	0	397,975	356
Germany	0	0	354,512	362
Re-imports	0	0	0	0
Other	37,400	65	2,027,777	1,445
Total	102,845	140	10,488,140	8,063
Total	102,043	140	10,400,140	0,003
N.Z. KENTUCKY BLUE	GRASS SEED TRADE 2000	/01		
Source/	IMPORTS		EXPORTS	2
Destination		US\$CIF		US\$FOB
Desunation	Kilograms	i i	Kilograms	•
		000		000
U.S.	4,871	16	0	0
Total	4,871	16	100	233
Total	7,071	10	100	233
N.Z. TIMOTHY GRASS	SEED TD A DE 2000/01	L		
N.Z. HWOTHI GRASS	SEED TRADE 2000/01			
Source/	IMPORTS		EXPORTS	3
<b>Destination</b>	Kilograms	US\$CIF	Kilograms	US\$FOB
Destination	Mograms	000	Kilograms	000
Australia	0	0	0	000
Canada	59,940	113	0	0
Other	0	0	0	0
Total	59,940	113	0	0
Total	39,940	113	0	U
N.Z. OTHER GRASS SEI	ED TRADE 2000/01	<u> </u>	I	
Source/	IMPORTS		EXPORTS	
Destination	Kilograms	US\$CIF	Kilograms	US\$FOB
	.,	000		000
U.S.	3,676	36	293,299	418
Australia	22,568	49	170,786	251
Argentina	71	5	18,186	35
Germany	1,006	58	172,377	302
Other	18,750	19		456
Total	46,071	167	826,921	1,462

Source/	IMPORTS EXPORTS				
Destination	Kilograms	US\$CIF('000)	Kilograms	US\$FOB ('000)	
U.S.	129,408	711	78,956	144	
Thailand	216	312	204,447	257	
Taiwan	108	167	404,474	327	
Netherlands	9,289	1,014	893,257	2,578	
Australia	63,809	880	24,641	322	
Other	121,189	2,801	2,303,769	4,685	
Total	324,019	5,885	3,909,544	8,313	
N.Z. LEGUMINOUS VEGE	TABLE SEED TRADE	2000/01			
Source/	IMPOR	TS	EXPORTS		
Destination	Kilograms	US\$CIF('000)	Kilograms	US\$FOB ('000)	
U.S.	64,247	135	258,844	322	
Australia	187,908	103	46,651	25	
Israel	0	0	0	0	
Italy	753	12	110,625	68	
Singapore	0	0	21,510	42	
Japan	460	23	0	0	
Malaysia	0	0	0	0	
South Africa	30	2	588,750	201	
Taiwan	0	0	0	0	
U.K.	23,000	15	0	0	
Other	123,199	2	216,777	33	
Total	230,597	292	1,243,157	691	
N.Z. FIELD CORN SEED T					
Source/	IMPOR	TS	EXPO	ORTS	
Destination	Kilograms	US\$CIF('000)	Kilograms	US\$FOB ('000)	
U.S.	117,859	488	0	0	
France	22,868	101	0	0	
Australia	6,998,602	993	13,200	4	
French Polynesia	0	0	4,458,740	733	
Other	36,593	44	592,015	137	
Total	7,175,922	1,626	5,063,955	874	

N.Z. TOTAL SEED TRADE 2000/01					
Source/	IMPORTS		EXPORTS		
Destination	Kilograms	US\$CIF('000)	Kilograms	US\$FOB ('000)	
All Countries	8,315,180	8,990	26,213,924	27,242	

## SECTION III. MARKETING, POLICY & PRODUCTION

## **New Zealand Certified Seed Entry and Areas**

Crop Type	1999/2000	2000/2001	1999/2000	2000/2001
	(Entry Numbers)1/	(Entry Numbers)1/	Area (ha)	Area (ha)
Arable Crop				
Barley	151	165	1,019	1,082
Wheat	230	254	1,594	1,795
Other	112	58	720	467
Total	493	477	3,333	3,344
Brassicas				
Total	153	137	1,060	739
Herbage & Amenity Grasses				
Hybrid Ryegrass	247	161	2,010	1,389
Italian Ryegrass	308	259	2,459	2,103
Perenial Ryegrass	1,662	1,142	15,033	10,104
Other	279	283	2405	2401
Total	2,496	1,845	21,907	15,997
Legumes				
Red Clover	225	168	1,268	905
White Clover	1,122	862	10,055	7,583
Other	51	34	340	244
Total	1,398	1,064	11,663	8,732
Other Species				
Total	260	360	1,487	1,524
Total	4,726	3,853	39,449	31,765

1/ entry numbers is defined as the number of paddocks (farms) entered for seed certification.

#### Production in 2001/02

Poor weather, mainly heavy rains during harvest time, will result in a much lower seed harvest in 2001/02, especially for white clover seed and ryegrass seed. This is on top on a decline in certified seed production in 2000/01 due to lower planted area for most seed crops (see table on page 6). In calendar 2000, total certified seed production reached 38,685 MT, up 9 percent from 35,329 MT in CY1999 (CY 2001 data will be available in April). In CY2000, certified seed production consisted of seed for herbage and amenity grasses (22,724 MT), arable crops (10,182 MT), legumes (3,509 MT), brassica (1,273 MT), and other (997 MT). New Zealand's certified seed production averaged about 35,000 MT from CY1996-99.

The 2001/02 seed cropping season will show a sharp drop in production as heavy rains in December 2001 and in January and into February 2002 cut yields and reduced quality.

Companies report that the season was the worst in three or four decades. The harvest ran about six weeks behind due to the rain, which came at critical time--right at harvest time for rye grass. The key harvest time is normally during January or February. Loss predictions are as high as 70% on some crops. Many areas in the North island received more than double the average rainfall in December and unsettled weather in January provided frequent delays for crop harvesting and planting. South island rainfall did not outstrip averages as much as North island areas but was generally wetter than normal in December in most areas except Canterbury and Southland. Some areas of Canterbury had half their average rainfall. Some producers in Canterbury at the end of February cut the seed to let it dry in the fields but the wet ground and some rains resulted in much sprouted seed and even dryers were of limited value.

Area in 2001/02 was also down for most planting seeds due to an oversupply of small seeds which depressed prices relative to improved returns for livestock, especially sheep and cattle. Some land was also shifted to cereals, which was judged more profitable than pasture or grasses. A hard frost in 2001 during planting also resulted in some planted pasture seed being lost and a drought also cut some area for ryegrass.

Industry officials report that perennial ryegrass seed yields in the 2001/02 season that just finished will be down 20-30 percent due to heavy rains during December-January. Area was also down due to an oversupply of seed which depressed prices and encouraged a shift to more profitable areas such as cereals. Annual ryegrass yields are estimated to be down 30 percent in 2001/02 with area also down.

Yields of white clover in 2001/02 are estimated to be down 60-70 percent due to heavy rains during the normal harvest time. Area was also down.

Yields of cereals in 2001/02 fared better, however, with wheat and barley yields expected to be up but quality off (especially sprouting). Corn yields in 2001/02 are estimated to be average or down slightly but the harvest will not be completed until April.

In the short term there is likely to be shortages in preferred varieties such as AR1. The market is likely to be tight for some varieties of AR1 because of damage from the rains and its growing poularity. AR1 is a novel endophyte contained in the the plant that allows it to be staggers-free. Some companies report that the poor harvest this year is likely to have a longer-term effect; at the end of 2002 and start of 2003 there will be shortages of seed. Prices for some common seeds may increase.

#### **Market Development Opportunities**

The New Zealand seed industry is open and very much attuned to the international market. New Zealand will remain a small volume buyer of seeds on the international market due to significant domestic production. The industry relies on international cooperation in numerous research projects and has an extensive network of foreign companies involved in joint research and marketing projects. The greatest opportunity for U.S. seed exports to New Zealand exists in the sale of proprietary forage grasses. New Zealand does have some problems producing certain seed types in sufficient purity, so niche opportunities exist for specialist turf applications, vegetables and grains. The poor harvest in 2001/02 may create additional opportunities for some seed imports in 2002. The weak New Zealand dollar relative to the U.S. dollar (currently 1\$NZ=.44 \$US) is also a constraint to U.S. seed exports (although the NZ dollar has strengthened from its low of 39 cents over a year ago). U.S. exports of planting seeds to New Zealand in calendar 2001 rebounded 24 percent to US\$2.0 million (according to U.S. Customs data).

New Zealand's seed imports were 8,315 MT in the 2000/01 season valued at US\$ 9.0 million CIF. The U.S. accounted for about one fourth of New Zealand's seed imports by volume, led by vegetable, field corn, and fescue seed.

#### **Marketing Channels**

The New Zealand seed industry has a unique marketing structure in comparison to other New Zealand agricultural industries. The marketing channel is dominated by a large center of seed companies who must compete with each other at both ends of the channel:

- to procure producer contracts from growers, or just to procure seed;
- to obtain international markets in which to sell.

There are five large companies which dominate the New Zealand seed industry. These are Wrightson Seeds, Pyne Gould Guinness, N.Z. Agriseeds, NZ Agricom and Cropmark New Zealand. These five companies are all plant breeders, that is they breed their own varieties and contract the production out to growers. There are also many other smaller companies.

There has been market shift in the New Zealand seed industry from generic marketing of seed towards proprietary marketing. This is where seed companies develop and market there own cultivars of seed for royalties. These proprietary companies will research and develop their own cultivars, contract the seed out to growers for multiplication and then market the product themselves. Research and development costs for one company have climbed to NZ\$6 million (US\$2.6 million) for the 2002 year in order to maintain an advantage.

In May 2001, Genesis Research and Development Corporation Ltd and Wrightson Ltd announced

they had completed the first phase of a program to breed high productivity forage grasses. Wrightson noted that in the past 15 years it has been breeding pasture grasses for enhanced animal performance in terms of liveweight gain or other output traits. Research has also shown that these grasses can increase animal performance by up to 50 percent. They are also targeting grasses that can reduce methane gas emission from livestock. Both companies also announced that they had entered Phase II of their collaboration to identify commercial targets, whether for NZ farmers or exports of pasture grass.

#### **Competitor Activities**

New Zealand's exports of seeds in 2000/01 were 26,213 MT, worth US\$27.2 million FOB. The United States took roughly one fifth by volume of New Zealand's seed exports in 2000/01, predominantly ryegrass seed. Other key export markets for New Zealand seed include Australia, the Netherlands, Germany and South America. New Zealand's exports in 2000/01 of ryegrass fell, especially to the U.S.

#### **POLICY**

#### **Plant Health Regulations**

Import protocols are targeted to reduce the risk of introduction of both insects and diseases. As an island nation New Zealand does not have many of the agricultural pests present in other countries, and therefore closely protects this status. All consignments must be accompanied by a phyto-sanitary certificate, and are likely to undergo a MAF inspection, with treatments required if pests or diseases are identified. All imported seed shipments must comply with the following basic conditions:

- Cleanliness- All seed must be clean, and in new packages
- Labeling- Each type of seed in the consignment must be clearly identified by its botanical name to the species level
- Phyto-sanitary certificate

MAF Regulatory Standards for the importation of seeds for sowing into New Zealand are available on the MAF website located at <a href="http://www.maf.govt.nz">http://www.maf.govt.nz</a>. To reach the import standards for seed sowing:

• Select: standards

Select: PlantsSelect: Plant Imports

Select: Import Health Standards for Seed for Sowing

Download the PDF file: Standard 155.02.05.

#### **Seed Certification**

The New Zealand seed certification standards are based on the Organization for Economic Development (OECD) and the American Association of Official Seed Certifying Agencies (AOSCA) standard. They are administered through AgriQuality New Zealand (a State-Owned Enterprise) through a single seed testing station in Palmerston North. The New Zealand Quality Management Authority is responsible for setting seed testing regulations, in terms of specific allowable levels of contamination/germination etc. for New Zealand seed. Members of the New Zealand Seed Quality Management Authority represent seed breeders, growers and merchants. Approximately 65 percent of

seed production is certified, and the majority of exports are certified seed, although uncertified seed is also exported. Vegetable seeds are not certified in New Zealand per the standards above but quality is agreed between producers and buyers.

#### **Intellectual Property Rights**

Intellectual property rights for plants in New Zealand are covered by the Plant Variety Rights Act 1987. New cultivars are registered with the Plant Varieties Office and must undergo trials to prove their distinctiveness and uniformity. The ministry of commerce regulates the PVR legislation, and has powers through the Act to prosecute seed merchants for selling PVR seed without payment of a royalty to the plant breeder. Details of the New Zealand Plant Variety Rights Act 1987 can be seen in report NZ9029.

#### Tariff & Non-tariff Barriers

The tariff rate for all imports of seeds classified as "for sowing" is zero. The main barriers to seed exports from the U.S. to New Zealand are phyto-sanitary in nature. Tight import protocols are targeted to reduce the risk of the introduction of both insects and diseases (see MAF plant health regulations). The new MAF requirements to test for GM presence in sweet corn seed for planting in 2001 and which will likely be extended to some other planting seeds in August 2002 are also barriers.

The local industry reports that non-tariff barriers that New Zealand faces as an exporter are also of a phyto-sanitary nature. New Zealand has faced major difficulties in exporting ryegrass seed to the U.S., due to a type of fungi found in viola, which is a common weed in New Zealand often found among ryegrass seed. This fungi has been classed as a noxious weed and thus prohibits any shipments of ryegrass containing viola into the U.S. Industry officials report that a stop gap solution on viola has been achieved. Japan and South America, especially Chile, are the other two markets where New Zealand has experienced phyto-sanitary difficulties. Two New Zealand seed companies, Wrightson and Agriseeds, have tried to overcome the difficulties experienced in the South American market by establishing New Zealand subsidiaries in the market. So far, this has proved to be successful in minimizing trade barriers.

#### **Trade Policy**

#### Regulations to test for GM presence in some conventional seed imports

The New Zealand Government is continuing to review the possibility that conventional seeds imported into New Zealand for sowing could be inadvertently contaminated with genetically modified (GM) varieties of those seeds, and whether current border controls are adequate. The Ministry for Agriculture and Forestry (MAF) plans to publish a discussion documant on this subject in March 2002, including proposals to change the border controls for imported seeds. MAF will be seeking comments from industry and the public by June 2002 and will implement any necessary changes in border controls as quickly as possible after then.

It is illegal to import GM organisms, including seeds, into NZ without approval through the Environmental Risk Management Authority (ERMA). There are no approvals for GM seeds for palnting or imports, and the Government announced in October 2001, a two-year moratorium on the release of GM organisms into the environment (including any planting seeds, whether domestic or

imported) until October 2003. The import health standard for seeds for sowing states that GM seeds cannot be imported unless they are approved. However, there is no additional monitoring or enforcement of this requirement, except for imported sweet corn seeds. Most companies take great care to act lawfully and to ensure they meet New Zealand's import requirements. There are also strong commercial pressures on companies to supply non-GM seeds - many are already testing their seeds to satisfy their customers requirements.

In August 2001, the Government introduced new requirements for sweet corn seed imported for sowing. Consignments must be tested for GM material either before being shipped or at the border, to ensure they are not contaminated with GM material. The testing protocol was introduced for one year (for details see www.maf.govt.nz/biosecurity/imports/plants/seeds-sowing). Testing results for sweet corn need to be from facilities accredited (requiring a site audit and assessment) or provisionally accredited (evaluated by a paper audit and assessment) for the purpose of meeting MAF's protocol of June 2001. The current list of accredited facilities is: 1. Agrogene, SA, France (provisional); 2. Biogenetic Services Inc., USA (provisional); 3. Biotest Pty Ltd., Australia (provisional); and 4. GeneScan Australia Pty Ltd., Australia (full accreditation). MAF officials reports that in 2001 (starting August 1), only a minimal amount of sweet corn seed imports were rejected for testing positive for GM presence (some seed came in before August 1). Some seed came in without certification of its GM free status and was sent to the lab in Australia where it was tested (with most shipments testing negative). Other shipments carried testing certification of their GM-free status. Officials from MAF and other agencies (including the Ministry for the Environment, Ministry of Foreign Affairs and Trade and ERMA) are now reviewing the requirements for sweet corn seeds to ensure that they are effective and appropriate. At the same time, these agencies are considering what requirements are appropriate for other seed varieties where there is a possibility that GM seeds could be inadvertently brought into New Zealand.

Based on the quantity of conventional seed imported and the area and the area of GM crops grown overseas, MAF considers that imports of maize seeds (sweet corn as well as dent/field corn and pop corn) and oilseed/forage rape (especially canola/rape and possibly soybean) seeds have the greatest chance of being accidently contaminated with GM varieties. MAF is assessing the possibilty of contamination for maize and oilseed/forage rape seeds, and is also looking at other imports such as lucerne (alfalfa) and crook-necked squash which appear to have a much smaller chance of being contaminated.

On the basis of this work, MAF is preparing a Cabinet paper for the NZ Government, which is expected to be ready soon (early April). This paper will define the possibilty of importing GM seeds for different seed types, outline the options for border controls, and recommend the most appropriate controls. Before submitting the paper to Government, MAF will consult with a few key stakeholders (e.g. New Zealand Grain and Seed Trade Association, New Zealand Vegetable & Potato Growers Federation and GE Free New Zealand). MAF will be seeking the information needed to analyse the likelihood of contamination and the full implications of the possible border control options.

Once the NZ Government has considered the Cabinet paper, MAF will publish its analysis in a discussion document, tentatively sheduled for April 2002. MAF will consult with the seed industry and

the public to ensure that any changes to border controls are effective and enforceable. At this stage, MAF anticipates that this consultation will be completed by June 2002 and that any neccessary changes in border controls, including for sweet corn seed, will be implemented as quickly as possible (most likely from August 2002 for corn seed and January 2003 for canola/oilseed rape seed).