

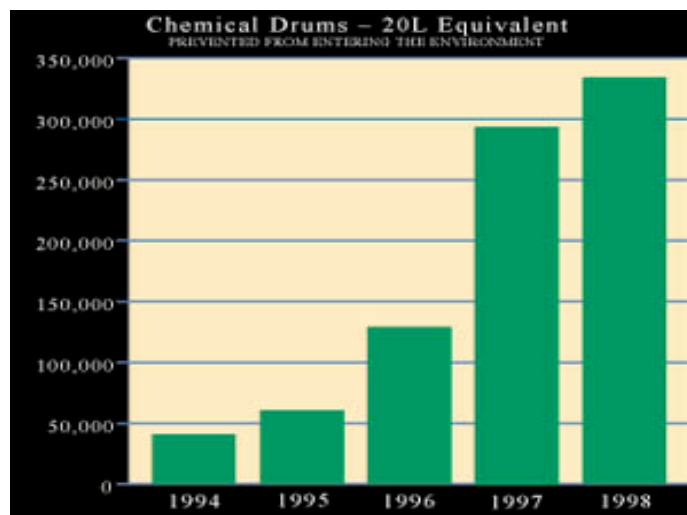
Dry formulations and refillable packaging benefit growers and the environment

Earlier this decade, we conducted worldwide research into processes for the manufacture of alternative formulations. Consequently, Nufarm built a pan granulation plant in Australia and in 1994, began production of dry formulation herbicides. This technology offers significant advantages to chemical users and the environment. Benefits include higher concentration of actives (so pack sizes are lighter), less volume of product to handle, accidental splashing is eliminated, transport and storage costs are reduced, spillage is easily cleaned up, there are no drum disposal problems and the drumMUSTER levy does not apply.

In 1995 we introduced a 110L refillable container, Envirodrum, for safer handling of liquid herbicides. Many growers and other users have adopted this closed chemical transfer system. Bulk refillable containers offer the same benefits as dry products in relation to drum disposal and the drumMUSTER levy. However they do require mechanical handling inputs. To satisfy the needs of large chemical users, we introduced Envirotank (1000L). Once empty Envirodrums and Envirotanks are returned to the place of purchase and forwarded to a Nufarm location for refilling.

How much progress have we made?

Over the last 5 years we have prevented the equivalent of more than 1.13 million 20L containers from entering the environment. Consumers would have saved \$910,000 in container management fees if the recently imposed drumMUSTER levy been introduced in 1994. The following table shows an impressive adoption rate for Nufarm products that offer safer chemical handling and environmentally acceptable packaging.



Increasing the momentum of change by farmers and other chemical users to safer chemical handling is a high priority for Nufarm. Our dry formulations and innovative packaging have revolutionised the way chemical users handle and mix many of our products. Some other chemical companies in Australia now offer choices in these areas, but their range is not nearly as extensive as Nufarm – see following tables.

Dry formulations & refillables		
NUFARM DRY HERBICIDE ALTERNATIVES TO LIQUID EQUIVALENTS		
Brand Name	Active Constituent	Pack Size
Baton	2,4-D amine	5kg, 10kg, 15kg
Convoy DF	Fluometuron/Prometryn	10kg
Duon 900 DF	Duon	10kg, 12kg (6x2kg)
Nutazine 900 DF	Atrazine	10kg, 13.2kg (6x2.2kg), 500kg
Nuton 900 DF	Fluometuron	10kg
Prometryn 900 DF	Prometryn	10kg
Smazine 900 DF	Smazine	10kg, 15kg, 500kg
Tomado	2,4-D sodium	10kg
NUFARM LIQUID CHEMICALS AVAILABLE IN REFILLABLE CONTAINERS		
Brand Name	Active Constituent	Pack Size
Amicide 500	2,4-D amine	110L
Amicide LD 500	2,4-D amine low odour	110L
Endosulfan 360EC	Endosulfan	110L
Estrodo 800	2,4-D ester	110L (WA, SA only)
Glyphosate 360	Glyphosate	110L
Glyphosate CT	Glyphosate	110L, 1000L
LVE MCPA	MCPA ester (low volatile)	110L
MCPA 500	MCPA amine	110L
Nugress	Diclofop methyl	55L
Surpass	2,4-D amine (glyph. compatible)	110L
Tiflur 480	Tifluralin	110L, 1000L
Weedmaster 360	Glyphosate	110L
Weedmaster 490CT PLUS	Glyphosate	110L