

Production of Rapeseed and Canola in United States

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During the last ten years the production of canola/ rapeseed has steadily although slowly increased in United States. At the same time the focus of production has also shifted from winter type rapeseed produced in the Mid West - Mid South region to spring type canola and rapeseed produced in the Northern Plains region, Pacific North West and to some extent also as a fall planted crop in the South East.

During this period it has come clear that although all of these regions offer some potential for rapeseed production the possibilities for rapid and sustained growth of acreage are best in the Northern Plains. Of the estimated 140,000 hectares of rapeseed/ canola produced in the US 1996 100,000 ha was grown in this region, 80% of this in the state of North Dakota.

The future development is likely to further emphasize the dominance of the Northern Plains region in rapeseed production in the US. The expected total acreage for 1997 is slightly over 260,000 ha, of which approximately 200,000 ha will be in the Northern Plains.

The first genetically engineered specialty oil rapeseed, Calgene's laurate canola, was first introduced to small scale commercial production in US in the fall of 1994. In 1996 the total planted acreage of laurate canola reached 10,000 hectares and is projected to be close to 50,000 hectares in 1997. Half of this acreage will be planted in the South East where it will constitute 100% of the region's rapeseed/canola acreage.

US Canola Production Areas



US Rapeseed Acreage (1000 Ha) 1994 -1997

Region	1994	1995	1996	1997*
North West				
All rapeseed	20	41	32	32
Laurate canola	0	0	0	0
North Plains				
All rapeseed	73	100	100	205
Laurate Canola	0	0	3	25
South East				
All rapeseed	4	4	7	24
Laurate Canola	1	3	7	24
US total				
All rapeseed	97	145	139	261
Laurate canola	1	3	10	49

* Projection

A Brief History of Laurate Canola

Year	Research	Breeding & Trialing	Production	Regulatory Evaluations
1985	Project initiated			
1986-7	Work on cuphea and seed-specific promoters			
1988	12:0 ACP hydrolytic activity in California Bay embryos			
1989	Purification of Bay TE			
1990	Complete CDNA obtained			Kan gene Safety Package to FDA in November
1991	First construct ready			
1992	New construct ready; best T3 selections have 40% C12:0	Best events to field trials; "50%" yield; crosses btwn. best T2 plants and canola varieties		Laurate Canola Safety Package to FDA in September
1993		Best selections from event '23' to field trials; "70%" yield	Small seed increases planted in the fall	Laurate Canola Safety Package to USDA in March; FDA approval for Kan gene in May; USDA approval for Laurate Canola in October
1994	First coconut LPAAT events; C12:0 in Sn2 position found	DH lines from first crosses to trial; "100%" yield	Increase '23-198' line; first commercial planting in the fall	FDA approval for laurate Canola in April
1995	First events with Bay TE dimer constructs; higher C12:0 with simpler genetics	New lines trialed in U.K. & Canada; new breeding lines with over 50% C12:0 identified	Commercial production; new laurate canola varieties increased	