

## Current Situation in Production and Marketing of Biodiesel in the Czech Republic

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After completion of basic research work in the RIAE, p.r.i. in years 1988-1991 aimed at solution of complex issues of oilseed rape destined for production of motor fuels, it was started in 1992 the production of fatty acid rape seed oil methylesters – FARME. On the fig. 1 it is illustrated the FARME production balance, its export, import of fatty acid methylesters (FAME) in the Czech Republic and market supply. Up to 2006 the FARME was utilized in the Czech Republic exclusively as a component of mixed diesel fuel – SMN 30 – B30 with content of 30% vol. FARME. The sales balance of this fuel is shown on fig. 2. Since 2007 it has been started obligatory admixing of FARME - FAME into diesel fuel according to valid technical standards for diesel fuel – see table. FARME comes to the market as a biodiesel in 2009 according to the regularization of excise tax. The reduced excise tax for B30 is confirmed by this law only for mixing of FARME and diesel fuel. In 2010 there have been sold on the market 20 500 t FARME as pure biofuel and 101 023 t B30.

Annual production capacities of FARME in the Czech Republic reach 425 000 t. Two establishments with annual capacity of 100 000 t, two factories with annual capacity of 70 000 t and one factory with annual capacity of 35 000 t. The rest is formed by decentralized production units of agricultural type. All crucial FARME producers in the Czech Republic have been certified up to the end of 2010 in the system International Sustainability and Carbon Certification (ISCC). In 2020 it is assumed the marketing ca 8.5% vol. (7.8% energetic) of FARME from diesel fuel consumption, which should bring reduction by 3.9% CO<sub>2eq</sub>.

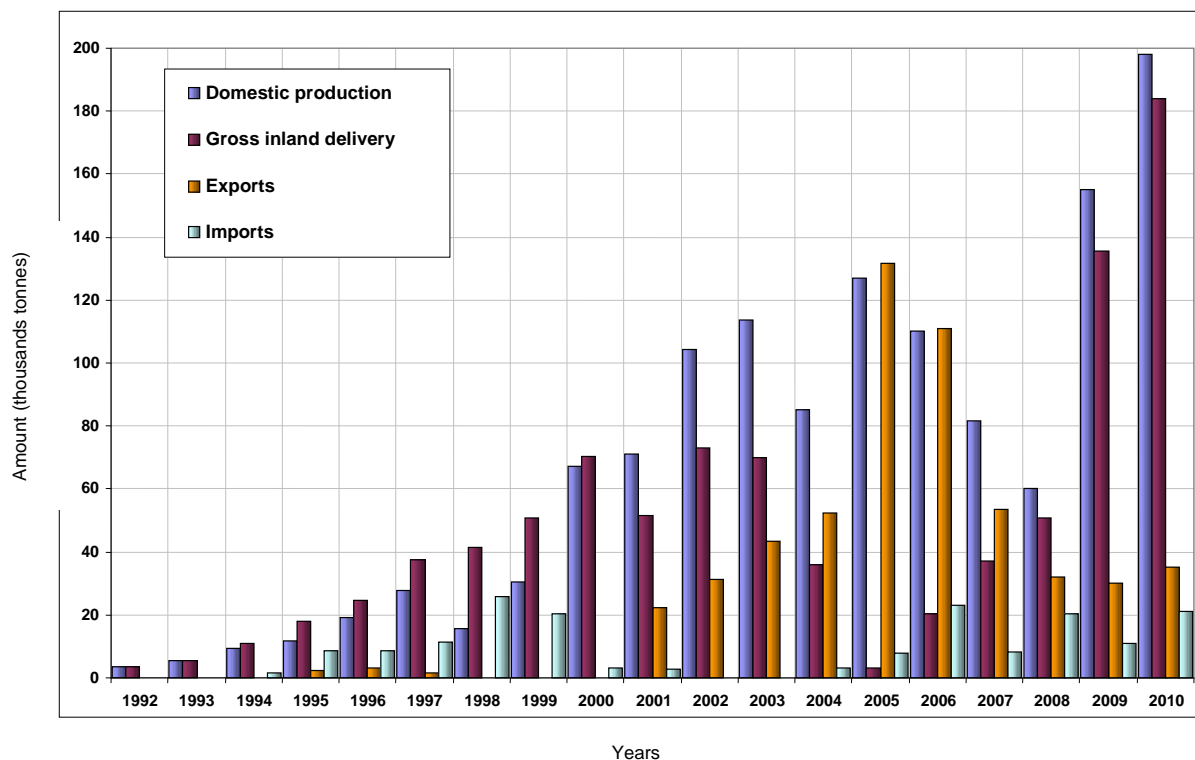


Figure 1: FARME (FAME) balance within 1992-2010 in the Czech Republic

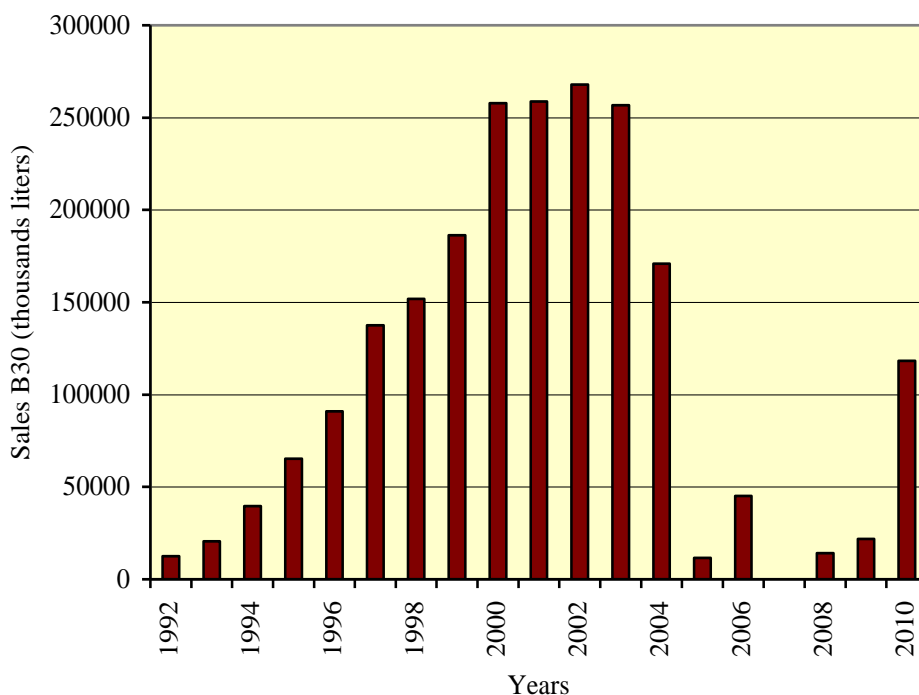


Figure 2: Sales of B30 in the Czech Republic in 1992-2010

## Development of minimal shares of biofuels in the Czech Republic in years 2007-2011

	2007		2008		2009		2010		2011	
	% V/V <sup>1)</sup>	% e.o. <sup>2)</sup>	% V/V <sup>1)</sup>	% e.o. <sup>2)</sup>	% V/V <sup>1)</sup>	% e.o. <sup>2)</sup>	% V/V <sup>1)</sup>	% e.o. <sup>2)</sup>	% V/V <sup>1)</sup>	% e.o. <sup>2)</sup>
<b>Biofuels (FAME, FARME) in diesel fuel</b>	<b>0.66</b>	<b>0.61</b>	<b>2</b>	<b>1.84</b>	<b>4.5</b>	<b>4.1</b>	<b>5.4</b>	<b>5.0</b>	<b>6.0</b>	<b>5.5</b>
Biofuels in motor petrol	-	-	2	1.32	3.5	2.3	3.9	2.6	4.1	2.7
Biofuels in fuels total	-	0.32	-	1.59	-	3.3	-	3.8	-	4.22
Minimal reduction CO <sub>2eq</sub> by using of biofuels <sup>3)</sup>	0.11 %		0.56 %		1.15 %		1.33 %		1.48 %	

<sup>1)</sup> % V/V = % volume

<sup>2)</sup> % e.o. = % energy content

<sup>3)</sup> The greenhouse gas emission savings minimal 35 % (Directive2009/28/EC).

Keywords: biodiesel, FAME, FARME, diesel fuel blends containing FARME, greenhouse gas emission saving