

## Appendix 1

**Table A1.1: Data sources and definitions for Integrated Crop Livestock System (ICLS) estimates**

Country	ICLS definition	ICLS % calculation	Years available	Source
Argentina	Commercial farms in mixed production (livestock and agriculture)	As a proportion of all livestock and agriculture farms	2013	“La Agricultura Familiar en la Argentina Diferentes Abordajes para su Studio” – Ministry of Agriculture, Livestock, and Fishing
Australia	Mixed livestock area (farms that receive <50% of their receipts from a single enterprise + wheat farms that integrate crops and livestock)	As a proportion of all non-pastoral area	All years from 1991-2017	Australian Bureau of Agricultural and Resource Economics (ABARE)
Brazil <sup>1</sup>	Area or farms in “mixed” crop livestock use (farms that have crop production combined with the rearing of animals in a joint activity, with a percentage of specialization in each less than 66%).	As a proportion of all livestock and crop farms or area	1975, 1980, 1985, 1996	Censo Agropecuario - Brazilian Institute of Geography and Statistics
	Area where crops are used to reform or renovate or recuperate pastures + area where animal manure is used on crop area	As a proportion of all livestock and crop area	2006	Censo Agropecuario - Brazilian Institute of Geography and Statistics
Canada	1971-2016: Mixed farms (the mixed farm operation is any farm that raises livestock and has some area devoted to crops for food)	As a proportion of all livestock and crop farms or area	1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016	Census of Agriculture – Statistics Canada
Europe <sup>2</sup>	1979-1997 & 2005-2013: Mixed farming (An agricultural holding where neither livestock nor crop production is the dominant activity; an activity is called dominant if it provides at least 2/3 of the production or the business size of an agricultural holding.)	As a proportion of all livestock and crop farms or area	1975, 1979/1980, 1985, 1987, 1989/1990, 1993, 1995, 1997, 2000, 2003, 2007, 2010, 2013	1975-1997: Eurostat Farm Structure Historical Results; 2000: Eurostat Agriculture Statistical Yearbook Data; 2007: Eurostat Pocketbooks Agricultural Statistics Main Results; 2010: Eurostat Pocketbooks Agriculture, forestry and fishery statistics; 2013: Eurostat File: Agricultural holdings, by farm type, by country
	1999-2003: "field crops-grazing" and "various crops and livestock combined"	As a proportion of all farms	1999/2000, 2003	Eurostat Statistics in Focus Structure of agricultural holdings

Japan	Area of dairy farms which own cultivated land (crops) + area of breeding cattle farms which own cultivated land (crops)	As a proportion of dairy and breeding cattle farms	2000, 2005, 2010, 2015	Census of Agriculture and Forestry - Statistics of Japan
New Zealand	1981-1996: Area of cropping with sheep + area of sheep farming with cropping	<i>All land:</i> As a proportion of all grain, sheep, and beef areas or <i>Non-pastoral land:</i> As a proportion of “cropping” + cropping with sheep + sheep farming with cropping areas	1981, 1990, 1994, 1996, 2002	Agricultural Production Statistics - Statistics New Zealand
	2002-2012: Area of grain-sheep farming + area of grain-beef farming	<i>All land:</i> As a proportion of all grain growing, sheep, and beef areas or <i>Non-pastoral land:</i> As a proportion of “grain growing” + grain-sheep farming + of grain-beef farming area	2002, 2007, 2012	Agricultural Production Statistics - Statistics New Zealand
Saudia Arabia	2015: Mixed area/mixed holdings	All	2015	Agricultural Census
United States	1950-2007: Cropland used only for pasture or grazing (farms and area)	As a proportion of all cropland (farms and area)	1950, 1954, 1959, 1964, 1969, 1974, 1978, 1982, 1987, 1992, 1997, 2002, 2007	Census of Agriculture – Land Use – US National Agricultural Statistics Service
	2012: Renamed “other pasture and grazing land that could have been used for crops without additional improvement,” but same meaning as past definition as you can see from 2007 data in table	As a proportion of all cropland (farms and area)	2012	Census of Agriculture – Land Use – US National Agricultural Statistics Service
Uruguay	Rice-livestock; livestock over rice	As a proportion of rice area + livestock area	1990, 2000, 2011	Agricultural Statistical Yearbook

Notes: 1 Brazilian data not used: 2006 farms or area in diversified use - if the sum of the production value of a single product has not reached 66% of the total production value (because the uses were not specified) or 1995-2006 mixed farms from CNAE because methodology of farms included not clear; 2 Years available for each country: Belgium, Denmark, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Spain, United Kingdom = 1975, 1979/1980, 1985, 1987, 1989/1990, 1993, 1995, 1997, 2000, 2003, 2007, 2010, 2013; Spain, Portugal = 1987, 1989/1990, 1993, 1995, 1997, 2000, 2003, 2007, 2010, 2013 Greece = 1993, 1995, 1997, 2000, 2003, 2007, 2010, 2013; Austria, Finland, Sweden = 1995, 1997, 2000, 2003, 2007, 2010, 2013; Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia (2003, 2007, 2010, 2013); Croatia, Norway = 2010, 2013, Iceland, Montenegro, Switzerland = 2010