

Cloning of animals kept and reproduced for farming purposes

In 2013 the European Commission proposed a directive according to which Member States would temporarily ban the use of the technique of cloning in mammals used for farming purposes. The EP is now set to adopt its first reading position on the dossier, based on a report drawn up jointly by the Committee on Agriculture and Rural Development (AGRI) and the Committee on Environment, Public Health and Food Safety (ENVI). Supporting such a ban, albeit through a regulation rather than a directive, the two Committees envisage extending it to all animal species used for farming purposes. The report also proposes to prohibit imports of any products, notably food, derived from cloned animals and their descendants. Possible restrictions on imports of cloned-animal-derived food in the EU are the subject of a parallel proposal by the Commission for a Council directive.

Introduction

In non-specialist terms, the word 'clone' may be understood as synonymous with an 'exact copy' of an object or a live being. In biological terms, clones refer essentially to different individuals having the same genetic material, primarily as the result of asexual reproduction or vegetative multiplication of a living organism. Clones are not genetically modified organisms (GMO). They are naturally frequent in the plant kingdom. The cloning of plants is a traditional and widespread practice in agriculture, e.g. by cutting-replanting or by techniques of micro-propagation of plant material. Clones can also be naturally found as result of asexual reproduction in some animals (notably in some insect and other vertebrate species). Clones in animals may also appear as a result of the splitting of a fertilised oocyte (the immature egg cell) or of an embryo at its very first stages of development, leading to the birth of 'true twins'.

An artificial technique to produce clones has been developed in mammals, by transferring the nucleus of a somatic cell (i.e. a non-reproductive cell, which contains all the genes) of an adult animal into an unfertilised oocyte from which the original nucleus has been previously removed. When developing, this embryo is implanted into a surrogate mother. After the first successful experimental trial in 1996 (in a sheep), this technique of artificial asexual reproduction in mammals has become mastered well enough to lead to wider use and possible market applications of the technique to produce numerous animals, all almost genetically identical to the parent cell-donor animal – something that normal or artificial methods of sexual reproduction would not allow in mammals. This technique is now available in some third countries, such as USA, Canada, Brazil, Argentina and Australia, and used in farming to produce numerous clones of the top-performing animals. In 2008, the US Food and Drug Administration (FDA) announced for the first time the possible authorisation of food products derived from cloned animals.

In the EU, food derived from such cloned mammals is subject to an EU pre-market authorisation, according to [Regulation](#) (EC) No 258/97 on Novel Foods. No application for food derived from cloned farmed animals has been submitted so far. According to indications provided by Member States to the Commission, no cloning is taking place on their territory for food production.

The context

Most stakeholders in the EU are not favourable to the use of cloning techniques in farmed animals. In a 2008 [report](#) on animal cloning requested by the Commission, the European Group on Ethics in Science and New Technologies (EGE) expressed doubts that animal cloning for farming purposes can be justified, 'considering

the current level of suffering and health problems of surrogate dams and animal clones', and concluded that it did 'not see convincing arguments to justify the production of food from clones and their offspring'.

In addition, the European Food Safety Authority (EFSA) views cloning primarily as an animal welfare hazard, pointing out the low efficiency of the technique. It updated its [opinion](#) on cloning of animals in 2012, concluding that the scientific knowledge available on cloning has increased but that nevertheless its efficiency remains low compared to other reproduction techniques.

According to a 2008 [Eurobarometer](#) flash survey, three quarters of interviewees agreed that there could be ethical grounds for rejecting animal cloning, and 69% agreed that animal cloning would risk treating animals as commodities rather than creatures with feelings. Moreover, 58% of the EU citizens polled said that such cloning should never be justified.

From the point of view of the main farmers' representative group, [COPA COGECA](#), animal cloning is of limited interest for EU animal breeders due to concerns about genetic diversity and the missing genetic progress from one generation to the next, high costs and no acceptance of the technology on the EU market.

The political debate on food from cloned farmed animals has been going on for several years. It was notably part of the inter-institutional debate on a 2008 Commission proposal for a new EP and Council regulation on novel foods, the adoption of which failed at the end of the [conciliation procedure](#). In July 2011, the European Parliament, in its [resolution](#) on the Commission's 2012 work programme, requested the Commission to present a specific legislative proposal to prohibit food from clones, offspring and descendants, outside the Novel Food Regulation.

The Commission's proposals

On 18 December 2013, the Commission proposed an [EP and Council directive](#) which would temporarily ban the use of the cloning technique on EU farmed animals (bovine, porcine, ovine, caprine and equine). The proposed directive would prohibit cloning of animals (bovine, porcine, ovine, caprine and equine) for farming purposes in the EU, and no such clone could be imported as long as animal welfare concerns persist. The proposed directive would temporarily ban the use of cloning techniques on farmed animals, as well as the placing on the market of live animal clones and embryo clones. Cloning would, however, not be prohibited for purposes such as research, conservation of rare breeds and endangered species, or in the use of animals for the production of pharmaceuticals and medical devices.

In parallel, the Commission presented a proposal for a [Council directive](#) to address the possible import of food derived from such cloned farmed animals, a proposal on which the EP has to give its consent. This second directive would ensure that food – i.e. any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans (Article 2, Regulation (EC) No 178/2002) – obtained with such animal cloning techniques is not placed on the EU market.

European Parliament

On 17 June 2015, the AGRI and ENVI Committee meeting jointly (also considering the [opinion](#) of the Committee on International Trade) adopted their [report](#) on the proposed directive regarding the cloning of animals kept and reproduced for farming purposes (rapporteurs Renate Sommer, EPP, Germany and Giulia Moi, EFDD, Italy). Supporting the ban of the cloning technique in farmed animals (bovine, porcine, ovine, caprine and equine), the report considers however that the EU should legislate on these matters through a regulation, not a directive. It would amend the proposal to extend the ban to all animal species used for farming purposes, and to prohibit imports of any products, notably food, derived from cloned animals and their descendants. As noted above, the Commission has proposed to deal with possible restrictions on imports of food derived from cloned animals via a separate proposal for a Council directive. The two Committees have taken the view that, beyond banning cloning for use in EU farming, the regulation should also deal with imports of products derived from cloned animals.

The item is scheduled to be voted during September I plenary session (first reading). On the Council side, discussions are expected to continue under the Luxembourg Presidency, on both this proposal and the parallel proposed Council directive.