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## Anticipated acquisition by Genus plc of Supersires Ltd

The OFT's decision on reference under section 33 given on 8 July 2004

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### PARTIES

1. **Genus plc** (Genus) is active in bovine genetics and related businesses. It operates in three principal areas: (1) the collection of semen from bulls within its own studs; (2) the distribution of bovine semen worldwide; and (3) the provision within the UK of artificial insemination services on cattle (AI services). In the financial year ending 31 March 2003, Genus' reported worldwide turnover was £161m.
2. **Supersires Ltd** (Supersires) distributes bovine semen within the UK and provides AI services within a specific regional area, comprising Somerset and parts of Devon and Cornwall. Supersires sources its supplies of bovine semen from studs outside the UK (mainly from its parent company, Sersia, in France). Supersires' worldwide turnover for the financial year ending 31 March 2002 was £2.5m.

### TRANSACTION

3. Genus' acquisition of the business, assets and certain liabilities of Supersires has been agreed in principle by both parties. It is subject to the satisfactory completion of due diligence, contract and approval from the Office of Fair Trading (OFT). The proposed transaction was notified to the OFT by means of a Merger Notice and the statutory deadline was extended and expires on 9 July 2004.

### JURISDICTION

4. As a result of this transaction, Genus and Supersires will cease to be distinct. The UK turnover of Supersires does not exceed £70 million. The turnover test in section 23(1)(b) of the Enterprise Act 2002 (the Act) is consequently not met. However, the share of supply test in section 23 of the Act is satisfied in respect of the distribution of bovine semen and the supply of professional AI services on cattle within the UK. A relevant merger situation has therefore been created.

## RELEVANT MARKET

5. The parties overlap in the distribution of bovine semen and the supply of professional AI services on cattle within the UK.

### Distribution of bovine semen

#### Product market

6. Semen is collected for commercial use from bulls with a proven track record of consistently siring offspring with genetic, physical and biological traits that farmers find commercially advantageous. After collection, the semen is treated, diluted and frozen. It is packed for distribution and retail in plastic 'straws' and stored in liquid nitrogen. Immediately prior to artificial insemination, the straws are thawed in warm water for a few seconds in order to reactivate the spermatozoa. One straw is used to inseminate one cow, ideally at an optimum point during the cow's oestrus cycle. Occasionally, more than one straw may be required in order for impregnation to be achieved.
7. Genus and Cogent, another bovine genetics company, are the only operators with significant facilities (bull studs) in the UK for the production of bovine semen. The remainder of the bovine semen distributed in the UK is sourced from suppliers overseas. As well as being active distributors of the product, Genus and Supersires are two of the eight principal importers. The product is distributed to farmers either directly by UK wholesalers - or indirectly via professional AI service providers.
8. There are two specific types of bovine semen used for AI. One type (dairy semen) is used to impregnate dairy cattle. The other is used to sire beef cattle (beef semen). The genetic specifications required of dairy semen are considerably more exacting than those required of beef semen<sup>1</sup>.
9. The parties submit that the prices of the bovine semen they distribute are constrained by farmers' ability to switch from artificial to natural insemination (i.e. for a farmer to have his cows serviced by one or more bulls). In practice, as many as 97 per cent of cows used for the generation of beef cattle are serviced naturally by one or more bulls kept by the farmer for that specific purpose. This strongly suggests that natural insemination is a price constraint on beef semen. However, dairy semen from 'proven' bulls is collected on the basis of the bulls' track record in consistently siring daughters with specific physical traits relevant to dairy production, such as udder capacity, teat length, teat alignment, milk yield, milk content etc. To a dairy farmer, artificial insemination is an attractive proposition relative to natural insemination given that AI allows him to garner – from a wide choice of bull sires and a large gene pool – the various genetic specifications he wishes to breed into his dairy herd.
10. In light of the above, the appropriate frame of reference for considering the competitive constraints on the merging parties in the distribution of bovine semen may be separated into the distribution of (a) bovine beef semen and

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<sup>1</sup> Beef semen is also used on dairy cattle to produce 'hybrid' calves

(b) bovine dairy semen. However, since no competition concerns arise whether the two types of semen are considered separately or together, it is not necessary to reach a final view.

#### Geographic market

11. The parties argue that the geographic frame of reference for the distribution of bovine semen is global in scope. Around 45 per cent of all bovine semen used for AI in the UK is imported. Transport costs are very low. The parties estimate these to be 2 per cent of the average retail price per straw.
12. Third party enquiries suggest that, notwithstanding the high level of imports, farmers and smaller AI service providers are unable to source bovine semen direct from overseas suppliers and must purchase their supplies through import agents or retailers in the UK. Furthermore, the shipment of bovine semen is subject to EC regulation. A farmer in the UK is prevented from importing semen directly from an overseas supplier unless he does so through an importing agent authorised by DEFRA or he obtains licensed authority from DEFRA himself.
13. For the purposes of this analysis, therefore, the frames of reference are the distribution of bovine dairy semen, and the distribution of bovine beef semen, in the UK.

#### Provision of professional AI services

##### Product market

14. AI services on cattle are provided in two ways. By one method, professional technicians visit farms and artificially inseminate cows using straws of bovine semen collected from one or more bulls (who may be located anywhere in the world) selected by the farmer – hereafter referred to as professional AI services. Alternatively, farmers may themselves perform insemination operations on cows independently of a professional service provider – a process referred to as 'DIY'.
15. A farmer generally arranges for the breeding females in his cattle herd to calve once a year. Cows have a 21 day fertility cycle which allows for a 'window' of usually no more than 48 hours (sometimes significantly less) within which insemination is most likely to lead to pregnancy and beyond which the likelihood of success diminishes. Having detected (usually during milking) that one of his cows is at a critical point of oestrus and ready to be artificially inseminated, the farmer segregates her from the rest of the herd. If the farmer relies on professional AI service providers, he needs to schedule a prompt visit to the farm by an AI technician who ideally should undertake the insemination service on the cow either on the same day or shortly into the next.
16. Prior to 1994, professional AI services in the UK were provided by two operators: the Milk Marketing Board ('MMB') and an association of cattle breeders called Associated AI Centres. Following the break-up of the MMB, the newly incorporated Genus took over as the main provider of AI services in England and Wales. Subsequent legislative changes allowed for new entrants to compete in the provision of AI services on condition that they obtain a licence

from DEFRA. There are currently around 30 independent professional bovine AI providers operating at various regional and local levels. The only player at the national level is Genus.

17. The parties argue that professional providers of AI services face two principal pricing constraints in the form of: (a) natural insemination; and (b) a customer's ability to switch to DIY. The fact that 97 per cent of beef cattle inseminations are by natural service from the bull strongly suggests that natural insemination constrains prices of AI services for the siring of beef cattle. However, given the farmer's rationale for siring dairy cattle by artificial insemination using dairy semen (see paragraph 9) it does not appear that natural insemination constrains prices of professional AI services for dairy cattle. The extent to which DIY is a feasible alternative to professional AI services – and its impact as a constraint on the price of AI services – is discussed in detail below.
18. In these circumstances, the most appropriate frame of reference for beginning an examination of the competitive constraints that would be faced by Genus post-merger is the supply of professional bovine AI services.

#### Geographic market

19. Although the parties argue that the relevant geographic scope is national, the geographic region in which the parties' respective operations in professional bovine AI services overlap consists of Somerset and Devon and Cornwall ('the south west'): an area with one of the highest densities of cattle population in the UK, with some 335,000 cows<sup>2</sup>.
20. In order to fulfil the requirement for prompt service, an AI technician must be based within a reasonable distance of a farm in order to arrange promptly for a cow to be inseminated on any particular day. Consequently, individual professional bovine AI providers serve only a relatively small area defined by a catchment of farms within an accessible radius, usually of their own home. The parties suggest that this radius is generally around 50 miles, but that this may be smaller in some circumstances. Estimates provided by competitors for the provision of professional bovine AI services and from farmers suggest that the radius measures around 20 to 30 miles for smaller suppliers (those operating with only two or three technicians) and 50 miles for larger businesses with a greater number of technically qualified personnel.
21. Furthermore, given that the provision of professional bovine AI services is licensed, and that the granting of such licences is by regional 'zone' within the UK, the geographical reach of a professional bovine AI provider is no wider than the zones specified within his licence.
22. For the purposes of this analysis, therefore, the frame of reference is the supply of professional bovine AI services at the local level.

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<sup>2</sup> Estimates provided by the parties  
[DEFRA statistics]

## HORIZONTAL ISSUES

### Supply of bovine semen

23. The table below provides UK shares of distribution for (a) all bovine semen and (b) dairy semen only. Since natural insemination accounts for some 97 per cent of beef cattle inseminations, the impact of the transaction on the distribution of bovine beef semen in the UK is not considered further.

**Table one: Supply of bovine semen in the UK, based on value<sup>3</sup>**

<b>Company</b>	<b>Share of supply of all bovine semen (%)</b>	<b>Share of supply of dairy semen (%)</b>
Genus	40-50	30-40
Supersires	<10	<10
<b>Combined</b>	<b>40-50</b>	<b>35-45</b>
Cogent	10-20	10-20
Semex	10-20	10-20
Northern Ireland AI Services	<10	<10
Avoncroft <sup>4</sup>	<10	<10
Alta	<10	<10
Semen World	<10	<10
LIC	<10	<10
Dairy Daughters	<10	<10
Jerseys	<10	<10
Small Breed Associations	<10	<10

Source: estimated by the parties. Total market value of bovine semen £34.1 million. Total market value of dairy semen £28.9 million

24. The table shows that Genus is the largest semen distributor in the UK. Supersires however is one of a significant fringe of alternative distributors. Although post-merger, Genus' share of all bovine semen distribution will increase to 40-50 per cent, and its share of bovine dairy semen distribution will increase to 35-45 per cent, the increments are low (< 10 per cent in each case).
25. Post-merger, there will remain a significant number of other semen distributors in the UK, many of which already account for shares of bovine semen distribution greater than Supersires' pre-merger position. Farmers will therefore continue to have an array of alternative suppliers among which to choose. This is augmented by the fact that demand for bovine semen is driven by the decisions made by farmers as to which bull to use as a sire in the generation of offspring cattle within his herd. Consultation with third parties suggests that the number of distributors used by an individual farmer varies between two and six.
26. Both Genus and Supersires supply semen to farmers who conduct their own DIY inseminations and to farmers that engage one or more third party AI

<sup>3</sup> Share of supply information in Table one and para 24 has been redacted for reasons of commercial confidentiality

<sup>4</sup> Since this table was provided Avoncroft has gone out of business

technicians. Indeed, most providers of AI services source their supplies of bovine semen from a number of different distributing companies.

27. Finally, the parties argue that the current worldwide oversupply of bovine semen has contributed to a fall of 20-25 per cent in UK prices since 1994. The oversupply has also created considerable competition in getting the product to the final purchaser – the farmer who exercises considerable choice in sources of supply, including the UK company, Cogent, and a range of UK importers that source bovine semen from around the world.

### **Supply of professional bovine AI services**

28. The parties estimate that post-merger they will supply 70-80 per cent of professional bovine AI services within the UK and 80-90 per cent within Great Britain. In Great Britain, the merger will combine the largest provider of professional AI services (Genus) with the second largest (Supersires). However, as discussed above, competition by suppliers of professional bovine AI services takes place only at the regional, or as is the case in some parts of the UK, local level.
29. The only region in which the parties overlap is the south west. Here, the parties also estimate that their post-merger share of the supply of professional AI services undertaken in Somerset, Devon and Cornwall will be 80-90 per cent (i.e. xxx,xxx inseminations – an increment of xx,xxx)<sup>5</sup>. The remaining 10-20 per cent of supply is accounted for by small independent professional providers in the region.
30. The Office has contacted other professional AI providers in this area and requested specifically the distance of their furthest customer from their base and the number of cows that they service in order to establish the relative sizes of their operations. This information is summarised below.

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<sup>5</sup> Numbers have been redacted to reflect the general order of magnitude at parties' request for reasons of commercial confidentiality.

**Table two: Suppliers of professional AI services in south west England and the areas that they cover<sup>6</sup>**

	<b>Depot location</b>	<b>Radius served</b>	<b>Estimated number of cows serviced per annum</b>
Genus	Eddington, Somerset Totnes, Devon South Molton, Devon St Colomb, Cornwall	50 miles	xxx,xxx
Supersires	Ilminster, Somerset Somerton, Somerset Dartington, Devon	50 miles	xx,xxx
<b>Combined</b>			<b>xxx,xxx</b>
<i>4 Suppliers<sup>7</sup></i>	<i>Data excised</i>	<i>&lt;50 miles</i>	<i>Data excised</i>

31. Additionally, examination of data on the radii served by the Genus and Supersires depots shows that the main area of overlap between the parties in the provision of professional AI services is within Somerset, specifically central Somerset. This is also the area in which other providers of AI services currently have the least coverage. It is also significant that the main concerns received in the course of this investigation have been from farmers in the Somerset region. In this part of the UK, the only competitive constraints that Genus would face post-merger would come from new entry (or expansion) by existing professional AI providers or from farmers switching to DIY. For the reasons set out above, natural insemination is not a good substitute for AI of dairy cattle.

#### **Barriers to entry and expansion**

32. Turning first to the possibility of new entry (or expansion) into Somerset by existing professional AI providers, there do not appear to be significant obstacles to such entry or expansion. A new entrant requires accredited training in order to become a licensed bovine AI service provider. The training lasts for three days and certification is granted on completion. There is also evidence of new entry by former employees of AI service providers. Suitable premises for the storage of the semen are also required and these must meet with DEFRA regulations. In addition, the new entrant requires a vehicle and liquid nitrogen flask. One recent new entrant estimated his costs of entry as being around £5000. As for expansion, this is also considered reasonably simple since marginal costs are low.<sup>8</sup>
33. The question then is whether new entry or expansion of sufficient scope is likely to occur, and would be sufficiently timely and sustainable to provide lasting and effective post-merger competition.

<sup>6</sup> See footnote 5.

<sup>7</sup> Competitor details have been excised from internal document to protect confidentiality.

<sup>8</sup> Marginal costs remain low up to a point where servicing an additional herd would require employing an extra inseminator which would require investment in a van, flask and liquid nitrogen.

34. In this connection, third parties argue that the main barrier to entry for any provider of professional AI services is the presence of Genus. They state that, given Genus' national presence, it enjoys sizeable economies of scale and can therefore offer prices below those of any new entrant in a region. Furthermore third parties stated that Genus can use its upstream activity in the supply of semen to subsidise the provision of its AI service. As a result, arguments have been made that it is difficult for a new entrant to compete on price in an area where Genus is present.
35. However, other evidence demonstrates that the above concerns are misplaced, and that firms regularly enter against and compete with Genus.
- Two new firms have begun supplying professional AI services in the south west during the past two years. [*Further commentary on new entrants has been excised*].
  - [*We have received evidence of plans for additional market entry – further details have been excised*].
  - Following Genus' acquisition of Scottish Livestock Services Limited in 1997 it became the monopoly supplier in Scotland. Since 1997, four new players have entered in the Scottish region and now conduct 15 per cent of professional bovine artificial inseminations in the region.
36. On balance, therefore, the evidence points strongly towards new entry (or expansion) being a real continuing constraint on the merging parties.

#### **Buyer power**

37. In addition to the above factors, the parties have argued that their customers (i.e., farmers) will be able to discipline their post-merger competitive behaviour by switching away from professional bovine AI to DIY in the event of a price increase (or service deterioration).
38. DIY is not considered to be a viable AI option for farmers who maintain small herds of approximately 70 cows or less. This is largely because on smaller farms DIY makes demands on scarce manpower and resources generally, but particularly in the need to have these available to fit in with all the individual oestrus cycles of all the cows in the herd used for breeding. There are also cost implications (albeit that these appear to be relatively minor) in terms of acquiring the accredited training and certification, and in purchasing and maintaining the necessary equipment .
39. However, for the 82 per cent of herds in the UK with 70 cows or more (84 per cent in Somerset), DIY is a feasible (and in some cases a preferred) alternative to professional AI services. DIY is a constraint on the price of professional AI services and has been responsible for driving prices downwards over recent years. Genus submits that pricing and bargaining information is freely exchanged within cost-conscious members of the farming community. Given that smaller farmers will be aware of the prices charged to those with larger herds, Genus is unable to price discriminate to the disadvantage of those farmers with fewer than 70 cows.

40. Genus has also pointed to the fact that farmers may obtain discounts on prices charged for AI services based on the number of inseminations undertaken. A farmer's scope for switching to DIY will strengthen his negotiating position in this connection.

## **VERTICAL ISSUES**

41. The south west of England has a high density in cattle population and the merged entity will be the principal supplier of professional AI services. Genus' commercial strategy has always been to encourage its own in-house AI service providers to use bovine semen sourced from Genus' own studs. Some third parties have expressed concern that there would be increased incentive for the merged entity to provide professional AI services only on condition that no bovine semen sourced from its competitors is used. If this strategy were applied, other distributors would lose the route to market formerly provided through Supersires, thereby reducing their potential for business by some xx,xxx inseminations.
42. However, it is clear that farmers switch between semen suppliers regularly. Approximately 15-30 per cent of the total insemination operations currently undertaken by Genus' in-house AI technicians use bovine semen sourced from Genus' upstream competitors; for Supersires it is a similar proportion. The decision to use bovine semen from an alternative supplier is made by the farmer. The merger creates no incentive on Genus' AI service provision business to ignore the demand made by farmers to have their cows serviced with bovine semen from a particular bull within a competitor's stud. Indeed it would be commercially irrational of Genus to forego AI service provision business simply because the farmer chooses to source semen from one of Genus' competitors.

## **CONGLOMERATE ISSUES**

### **Pricing of AI services**

43. During this investigation, the OFT received a number of complaints regarding Genus' pricing practices. It has been submitted by a number of third parties that Genus does not have a national pricing policy but that it charges higher prices in areas where it has a local monopoly. Third parties fear that post merger prices in the south west, particularly in the Somerset region, will increase. In particular, concerns have been voiced by AI technicians active in other areas of the UK that Genus will use monopoly profit earned in the south west to subsidise its operations in other regions; competitors in other parts of the UK will not be able to match these low prices and their businesses will close removing any competition that Genus currently faces in other regions. Indeed third parties have alleged that Genus is already active in predatory pricing behaviour as evidenced by Genus' falling prices over recent years.
44. These concerns are not well-founded. First, in the light of the conclusion above that Genus will face significant post-merger constraints in the south west, the complaint that it would be able to earn a monopoly profit there is not plausible.

45. Second, the parties have supplied to the Office a list of the revenues received by Genus on a regional basis - together with details of the number of competitors that they face and their share of inseminations in each of these regions. The data do not show any significant correlation between the price Genus charges and the level of competition it faces at the regional level. In fact in one area where Genus is the sole supplier of professional bovine AI services, Hampshire, average revenue per insemination is x pence less than that achieved in Somerset where Genus' share of supply is 15-25 per cent and it competes with three other players. Genus submits that its national pricing policy for AI services is driven by discounts which depend on the number of inseminations conducted per farm visit and the distance travelled to conduct the insemination.

### **THIRD PARTY VIEWS**

46. A number of complaints have been received in respect of this case, including many responses to the Office's Invitation to Comment. Key concerns, which have been addressed above, include:
- The merger will create a monopoly supply of professional AI services in certain parts of south west England.
  - DIY is not an alternative for many farmers.
  - Semen suppliers will lose access to a large number of cows in South West England.
  - Genus will use monopoly profits earned in the South West to subsidise its AI operations in other parts of the country and undercut other AI providers in other regions thereby putting any competitors out of business.

### **ASSESSMENT**

47. The parties' activities overlap in the bovine genetics industry, specifically:
- a. the distribution of bovine beef and dairy semen in the UK, and
  - b. the provision of professional AI services on cattle at the local level.
48. The merger also raises one potential vertical issue in that concerns have been raised for the possibility of the route to market for competitors' supplies of bovine semen to be blocked.
49. In the distribution of bovine beef and dairy semen, the importance of natural insemination in siring beef cattle means that no issues emerge in relation to beef semen. As for bovine dairy semen, Genus is acquiring only a small player in Supersires, one of a fringe of alternative suppliers, many of which are already larger than Supersires. In addition, farmers' ability to switch among distributors will not be diminished since they make choices based on which bull's semen they wish to buy. Consequently, the small increment in Genus' share of supply of bovine semen does not raise competition concerns.
50. In the supply of professional AI services, Genus and Supersires overlap only in the south west and will face limited rivals only in Somerset. However, barriers to entry are particularly low: the supply of professional AI services offers scope for expansion, and entry is achievable on a timely and sustainable basis. There

is evidence of entry having been achieved in the south west recently. Further, farmers' ability to switch to DIY is a constraint on prices for professional AI services and switching, or the threat of switching, to DIY has driven prices downward over recent years. This merger does not change those incentives.

51. Concerns that the merger will impede the route to market for competing suppliers of bovine semen are not commercially realistic given that farmers have considerable choice in sourcing bovine semen from bulls in studs all over the world. The farmer makes the ultimate purchasing decision and, as a provider of a professional AI services, Genus would forgo business if it refused to inseminate cows with bovine semen sourced from its competitors.
52. Consequently, the OFT does not believe that it is or may be the case that the merger will be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.

## **DECISION**

53. This merger will therefore **not be referred** to the Competition Commission under section 33(1) of the Act.