

**Teagasc Moorepark, Animal and Grassland Research and Innovation Centre, Fermoy, Co. Cork,
Ireland/Dairy Production Research Centre**

<p>Research topics:</p>	<p>Research at Moorepark Farm is centred on different components of the overall milk production system from a predominantly grazed grass diet. Presently the research programme in Moorepark farm is focusing on i) grassland and grazing management, ii) dairy cow nutrition, iii) dairy cow reproduction, iv) animal health and welfare, v) genetics, vi) replacement heifer rearing and vii) automated milking technology.</p>
<p>Activities and services currently offered by the infrastructure/installation:</p>	<p>At Moorepark farm the classical animal measurements such as milk production, milk composition, body condition score and bodyweight, are possible. In addition, n alkane measurements (to estimate dry matter intake at grazing) and methane measurements (SF6 technique) can be completed, and there is a metabolism house with 10 cow spaces to conduct detailed nutrition or physiology studies. Work is also currently underway developing accurate equations to estimate the nutritive quality of grass as well as other complementary feedstuffs.</p>
<p>Description of the access to be provided under SmartCow TNA calls:</p>	<p>As part of the access all experimental data will be recorded on the Teagasc database, and the information gathered within SmartCow will be available to all project partners to be integrated into the project cloud-based data platform. If users wish to undertake a meta-analysis project, they may be given access to the Moorepark database on specific aspects. The details of any meta-analysis will be discussed prior to it being undertaken.</p> <p>Users will be given office and lab bench space as well as access to the Teagasc computer system. A full induction course will also be given to visiting researchers. Although free accommodation cannot be offered assistance will be given to locate suitable lodgings. In relation to animal experiments measurement protocols, equipment access and technician time will be available. All projects will also be planned with members of the grassland department and there will be constant interaction between the visiting scientist and members of the department.</p> <p>The unit of access for this installation is defined as one cow.week. One typical access for a project consists of 960 units of access. One typical access covers time at the centre to prepare for the experiment, if a licence is required to undertake animal measurements this will need to be applied for prior to the visit in order to maximise experimental time. Users will have the opportunity to overlay measurements across on-going experiments which investigate the maximisation of production efficiency from a grazed grass diet. As part of the access users will have access to dairy cows, rumen fistulated animals, facilities to undertake and analyse</p>

	<p>specific samples <i>e.g.</i> blood sampling. Access will also be granted to intake estimation facilities. The users will have to complete the required ethics courses (LAST) and to be trained in the measurement techniques in advance of the project start up.</p>
<p>Animal types, diets, housing and experimental conditions that can be worked on in this infrastructure/installation:</p>	<p>Moorepark has 280 dairy cows (60 cows available to this work), there is availability to conduct system or component type experiments.</p> <p>At present there are 100ha of permanent grassland, laid out in paddocks which facilitates grazing management and nutrition studies. There is a 10 stall metabolism house for detailed nutrition work. There are also 10 roughage intake control feed stations. There are 2 automatic calf rearing feed stations and replacement heifer rearing facilities. There are also laboratories for sample and feed analyses.</p>
<p>Travel and subsistence costs:</p>	<p>According to Teagasc rules, travel and subsistence costs of applicants can be reimbursed on production of original receipts. Train or flight tickets can be also directly ordered by Teagasc for the successful applicants. According to the amount of money available for this purpose in the project and the expected number of applicants, Teagasc may have to limit user reimbursements to 2 people for a stay of 3 days. This point will be examined on a case-by-case basis, according to the protocol duration and external user involvement.</p>
<p>Infrastructure/installation ethical rules:</p>	<p>All experiments must obtain ethical approval from the Teagasc Animal Ethics Committee (TAEC). If the project involves licensable procedures (<i>e.g.</i> blood sampling) a project license will be required from the Health Products Regulatory Authority of Ireland (HPRA) http://www.hpra.ie/homepage/veterinary . All individuals taking measurements as part of the project will also need an individual license from the HPRA.</p>