

Litir do Luchd-Ionnsachaidh

le Ruairidh MacIlleathain

*Each week the West Highland Free Press publishes the text for Roddy Maclean's "Letter to Gaelic Learners" which is broadcast at approximately 1150 every Friday morning on BBC Radio nan Gaidheal (103-105 FM)**

Dè tha na litrichean "GM" a' ciallachadh dhuibhse? Don chuid as motha de mhuintir Bhreatainn, tha iad a' ciallachadh mar a bhios biadh air atharrachadh le bhith ag atharrachadh nan gineachan – neo "genes. *Genetically Modified*, mar a chanas iad.

Ach tha ceangal nas sine aig na litrichean GM do ghineachan agus don t-saidheans a bh'air a chruthachadh timcheall ghineachan – saidheans ris an canar "gintinneachd" – neo *genetics*. 'S e am fear a dh'ionnsaich an toiseach mar a bhios gineachan ag obair – fear air an robh na litrichean G agus M mar a' chiad litir anns gach ainm aige. Gregor Mendel.

'S e manach a bh'ann an Mendel agus bha e a' fuireach ann am manachainn anns an Ostair – a tha a-nise mar phairt de Phoblachd nan Teagach. Rugadh e anns a' bhliadhna ochd ceud deug is a dha ar fhichead (1822). Aig aois ceithir deug ar fhichead (34), thòisich e air rannsachadh air lusan – air peasraichean a bha e a' cur ann an leas na manachainn.

Bha an rannsachadh aige sìmplidh gu leòr, ach 's e a bha math mu dhèidhinn gu robh Mendel gu math cùramach. Aig an toiseach, bha e a' coimhead air dìreach aon rud – cho àrd 's a bha an lus. Fhuair e lusan àrda agus lusan beaga, an dà chuid gun seòrsa sam bith eile nan sinnsearachd. An uairsin chuir e poilean bho fhùraichean an darna fhir air fhùraichean an fhir eile. Chuir e na sìl – na peasraichean – a thàinig às a sin, agus rinn e tomhas air cho àrd 's a bha na lusan ùra – an ath ghinealach, neo "F a h-aon" (F1) mar a chanas iad. Agus bha iadsan air fad àrd.

An uairsin, dh'obraich Mendel leis an F a h-aon, agus rinn e an aon rud, a' cur poilean bho chuid de lusan air na fhùraichean aig lusan eile. Agus dè thachair anns an ath ghinealach? Uill, rud a bha iongantach 's dòcha. Bha feadhainn aca àrd a-rithist, dìreach mar a bha am pàrantan, ach bha feadhainn eile ann a bha beag – dìreach mar a bha na lusan beaga nan sinnsireachd.

'S dòcha gu robh feadhainn eile a bharrachd air Gregor Mendel air rudan mar sin fhaicinn. Ach rinn Mendel rudeigin sìmplidh nach do rinn duine sam bith eile roimhe. Chunnt e na lusan. Bha trì cairteal dhiubh àrd, is cairteal dhiubh beag. Thuig Mendel an uairsin gun gabhadh seo mìneachadh nan robh dà rud ann – dà ghine – airson àirde, le fear aca nas làidire nan fhear eile. Agus 's ann às a sin a thàinig na riaghailtean bunaiteach air gintinneachd ris an canar an-diugh "Na Laghan Mendealach", às deidh a' mhanaich.

Ach dè am beachd a bhiodh aig GM – Gregor Mendel – air biadh GM an-diugh, agus air an deasbad ann am Breatainn mu dhèidhinn? Nuair a bha e a’ deanamh rannsachadh air na lusan aige, an robh beachd aige gum biodh luchd-saidheans ceud bliadhna as dèidh a bhàis a’ cur gineachan bhon aon seòrsa luis ann an lusan de sheòrsa eile? Neo, gu dearbh, bho bheathaichean gu lusan, is bho lusan gu beathaichean? Chanainn nach robh. Ach a bheil sin a’ ciallachadh gum biodh e mi-thoilichte mu dhèidhinn?

Tha an seanfhacal ag ràdh, “Nuair a bhriseas aon bhò an gàrradh, thèid a dhà-dheug a-mach air.” Bhris Gregor Mendel gàrradh aineolais o chionn còrr math is ceud bliadhna. ’S e an t-eagal a th’air mòran gun dean an dusan bò eile cron mòr fhad’s a tha iad a’ ruith mun cuairt gun smachd orra. Ge bith dè thachras, tha mi’n dòchas nach gabh an sluagh droch bheachd air an t-saidheans a chruthaich Mendel. Càit’ am bitheamaid an-diugh as aonais?

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Faclan na seachdainne: a’ ciallachadh: *meaning*; ceangal: *tie, connection*; saidheans: *science*; gine, gineachan: *gene, genes*; an Ostair: *Austria*; Poblachd nan Teagach: *the Czech Republic*; peasraichean: *peas*; cùramach: *careful*; iongantach: *surprising*; tomhas: *estimation, measurement*; bunaiteach: *basic, fundamental*.

Abairtean na seachdainne: air atharrachadh: *changed, modified*; rugadh e: *he was born*; chuir e na sil: *he planted the seed*; gàrradh aineolais: *a wall of ignorance*; ge bith de thachras: *whatever happens*; càit’ am bitheamaid?: *where would we be?*; as aonais: *without it*.

Puing ghràmair na seachdainne: Am parantan: *their parents*. The possessive “*their*” can be given in two ways in Gaelic – firstly by using “*aca*” (at them). Seall air a’ chàr ùr *aca!* (look at their new car!). A second, neater way is to use “*an*”. eg Seall air a’ chloinn - tha an sùilean gu lèir gorm (look at the children – all of their eyes are blue (ie they are all blue-eyed). Tha an leabhraichean air a’ bhòrd (their books are on the table). For ease of pronunciation “*an*” becomes “*am*” before certain consonants ie *b, f, m, p*). Tha am prèasantan fon chraoibh (their presents are under the tree). The “*an*” and “*am*” become “*nan*” and “*nam*” when we want to say “*in their*” ie *nan sinnsearachd* (in their ancestry); bha na pinn nam pòcaidean (the pens were in their pockets). Note that “*pòcaidean*” is not lenited. This allows you to distinguish it from “*in my pockets*” in which the noun *is* lenited ie bha na pinn nam phòcaidean (the pens were in my pockets).

Seanfhacal na seachdainne: Nuair a bhriseas aon bhò an gàrradh, thèid a dhà-dheug a-mach air: *When one cow breaks the wall, twelve will go out (ie make their escape)*. Notice that in Gaelic we say a-mach air for “*out of*”. So we get a-mach air an doras (out of the door) and a-mach air an uinneig (out of the window). In crofting areas gàrradh generally means a dry-stone wall, usually running around a house, garden or field. But it has also come to mean “*garden*” and this is its more common meaning in the towns. Another word for “*garden*” is *leas* which appears in this letter – *leas na manachainn* – the monastery garden. In some dialects this is *lios*. Lismore is *Liosmòr* (great garden) - a fitting description of a fertile and beautiful island.

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