

Exploiting Brassica diversity for Novel uses.

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Trait to genes

- Use of genomic and genetic data
- *B.oleracea* EST sequencing project and BAC sequencing
- *B.rapa* genome sequencing project - mapping
- Oil analysis of DFFS sets

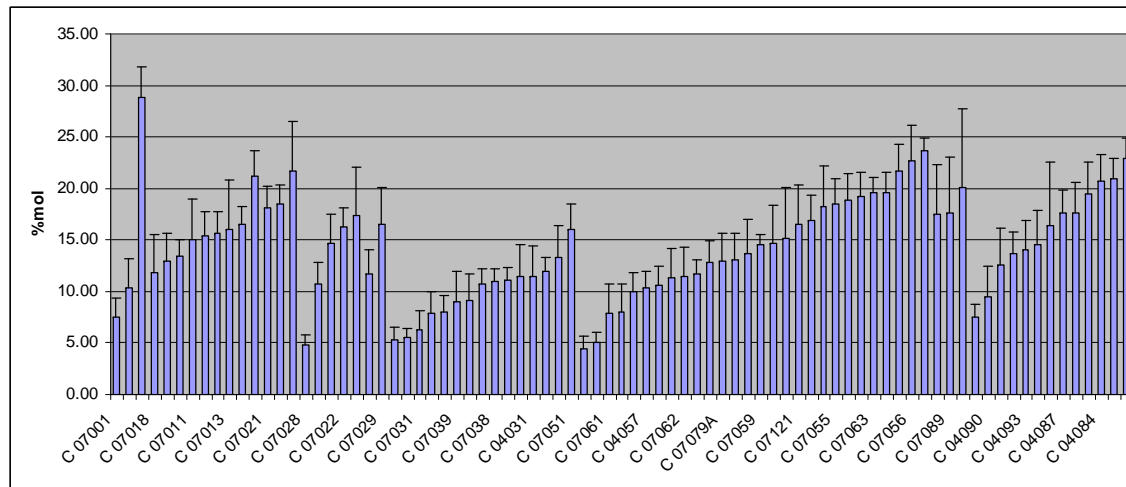


Fig 3. Amount of 18:3n3 (Omega 3) as a percentage of the total seed fatty acid content in Brassica "C" genome DFFS (Wild species) set 1.

Allelic variation and seed oil content

- Mapping of key genes in Oil synthesis
- Locus specific development of PCR assays
- Allelic screening of DFFS
- Synonymous vs non-synonymous
- Association with phenotypic data
- Crossing for beneficial alleles

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fad2complete.seq(1>2709)      → | ACTGGGCCTGCCAaGGgTGCGTCCTAACCGGCGTCTGGGTCA
▶E08_E08_010_BOW_FAD2F.ab1(31>982) → | ACTGGGCCTGCCAGGGCTGtGTCCTAACCGGCGTCTGGGTCA
▶E09_E09_009_BOW_FAD2F.ab1(32>1067) → | ACTGGGCCTGCCAaGGgTGCGTCCTAACCGGtGTCTGGGTCA
▶E09_E09_009_BOW_FAD2R.ab1(290>1001) ← | ACTGGGCCTGCCAaGGgTGCGTCCTAACCGGtGTcTGGGTCA
▶F05_F05_011_BOW_FAD2R.ab1(291>1019) ← | ACTGGGCCTGCCAaGGgTGCGTCCTAACCGGCGTcTGGGTCA
▶F07_F07_011_BOW_FAD2F.ab1(33>984) → | ACTGGGCCTGCCAGGGCTGtGTCCTAACCGGCGTCTGGGTCA
▶F07_F07_011_BOW_FAD2R.ab1(292>999) ← | ACTGGGCCTGCCAGGGCTGtGTCCTAACCGGCGTCTGGGTCA
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Non food use

- Bio-energy
- Bio-materials
- Sustainability of production

