After surviving one of the wettest recorded winters it is difficult to contemplate setting foot on most tillage fields let alone cultivating them. Athenry weather station reported rainfall for December to February of 574mm which translates to 175% of the long term average rainfall for that period (met eireann). Weather patterns are not forecast to improve but Irish weather can change quickly - growers will require patience. Time away from the field may provide opportunities to plan the farm cropping regime for 2016 paying particular attention to the changes to the CAP rules in 2015 applicable until 2019/2020 in order to qualify for Basic Payment Scheme (BPS) and Greening payment. Growing a profitable Spring Barley crop is presenting a significant challenge for the coming season with downward pressure being put on forward grain prices and production costs static at best.

There are a number of key guidelines that will greatly influence the yield and quality of a spring barley crop.

**Soil Fertility**

Establishing the fertility status with up to date soil analysis is essential. Approximately 85% of the tillage samples nationally are sub-optimum for Lime (pH), Phosphorous (P) or Potassium (K) and in some cases all three; quite remarkable considering Ireland is achieving the highest barley and wheat yields globally. Spring barley is much more sensitive to acidity than grassland requiring 6.5pH minimum. Ground limestone should be spread onto ploughed ground and tilled in during cultivation to raise the pH to its optimum level. In contrast to other inputs, the costing’s for the delivery and spreading of lime have not changed in over 10 years at €20-25/tonne making it the most worthwhile investment. Aim to have all fields at P & K index 3. This is the optimum level for the soil to maximise the yield potential of the barley crop. At index 3 a high yielding Spring Barley crop will require 3 bags of 18:6:12/acre at sowing + 2 bags of CAN (27%N)/acre at early tillering. On lower index soils, extra P & K is required and ideally drilled with the seed.

**Cultivation & Sowing**

Sow spring barley as early as conditions allow in March as yield potential diminishes in
crops sown after mid-April. A fine firm seedbed with as little cultivations as possible for fast and even germination will minimise compaction and damage to soil structure. Spring barley seed is best sown at a depth of 3-5 cm and should be rolled after sowing to achieve good soil to seed contact, weather permitting.

**Seeding Rates & Variety**

The most decisive factor when picking a variety is the grower's past performance comparative to the crop variety recommended list issued annually by the Department of Agriculture. Certified blue label seed is being priced at €500/tonne. At the time of writing this article the forward price is €115-120/tonne, matching the cost of production according to Teagasc Crops Costs & Returns 2016.

The seeding rate and the plant establishment is one of the prime drivers of yield in spring barley. A high yielding barley crop requires the establishment of 280-320 plants/m², producing approximately 1,000 heads/m². To achieve this, a sowing rate of 10-12st/ac is required depending on sowing date, variety and the 1,000 grain wt. (TGW) of the seed batch been sown. Getting a healthy establishment of plants is vital as metrics show a direct correlation between grain numbers and yield in barley.

Given these statistics, renting expensive con-acre for growing spring barley in 2016 is a risk given a breakeven yield of 3t/acre @ €135/tonne (excluding Straw) but with no land charge.

However grain markets have been in the doldrums before and the forces that impact on performance and profit perpetually play their role. This is a volatile time for the humble grower and his plough but care in selecting and growing the crop along with patience, experience and some good weather should help battle the storm.