1. **Corn Silage:** Lactating Dairy Cows are the *metabolic athletes* of the livestock world. Few other creatures (a possible exception might be finishing steers) require the same levels of nutrition. Energy is frequently the limiting factor for these cows who are producing milk at a rate, in many cases approaching 30,000 pounds per lactation. At the same time, they are being asked to regain the weight they may have lost after calving and to rebreed so that they can repeat the process on a twelve month cycle.

Corn silage is perhaps the most frequently used forage that can provide this energy. In addition to fairly high levels of energy, corn silage has digestible fiber, so necessary to proper rumen function. Per acre yields for energy are high which make corn silage an attractive choice on an economic basis.

2. **Alfalfa Hay and Haylage:** Lactating cows also require relatively high levels of protein in their rations. Alfalfa can provide this protein while not compromising energy levels. Alfalfa can also contribute very necessary fiber to a ration. Long stemmed alfalfa hay is particularly useful in that it can provide the “scratch factor” - stimulating the production of saliva which serves to buffer the rumen. It is this buffering process which can help prevent the subclinical acidosis which can cause lameness.

3. **Cow Comfort:** High levels of production for any livestock require adequate comfort. This means time to lie and to ruminate in a relaxed condition. The extremely high levels of energy found in the ration of lactating cows usually require a relatively high level of starch. The rumen bacteria required to digest this starch produce higher levels of acid than optimal. The result, in too many cases, is subclinical acidosis. This can create sole abscesses in feet and lameness. Lame cows are not likely to eat as much as necessary to maintain their production and body condition, nor are they likely to cycle or to display signs of heat.

To ensure cow comfort and to extend the useful lifetime of these cows, managers need to ensure that rations do not include high levels of starch. Other measures that can prevent lameness could be limiting time spent on concrete.

One solution to enhancing cow comfort and to extend the cows’ careers would be to allow them to graze as much as possible. This would accomplish both of these...
objectives by providing a ration low in starch and allowing the cows to spend more
time on dirt and less time on concrete. Cows on pasture tend to wear hooves in a
more natural manner and require little of no hoof trimming. They express signs of
heat and get bred back more quickly. In short, while their production levels might
not quite reach the 30,000 pound per lactation level, their lifetimes can be much
longer than those conventionally managed. In the dairy business, longer lifetimes
can mean higher profitability.

4. **Electric/High Tensile Fencing:** Without fencing, the cows are in charge. If we
want to be in charge, reliable fencing is necessary. Due in great measure to our
friends in New Zealand, electric high tensile fencing technology is available. This
fencing is relatively inexpensive, easy to install and long lasting. Low impedance
energizers make fence charging a pretty reliable proposition. Class III
galvanization on the high tensile wire means that wire can last far longer than
older wire would. By charging a fence, fewer wires are necessary and those wires
do not have to be as tight as would otherwise be needed. High tensile wire has a
“memory,” meaning that if deflected, it will return to its original length. This
property is especially valuable in wooded areas. High tensile woven wire fences
are also available and feature those properties mentioned above. Temporary
fences utilizing polywire and fiberglass or plastic posts are easy to install and
make rotational grazing practical.

5. **Stockpiled Fescue:** Fescue is at its best, especially in quality in the months of
November, December and January. By deferring grazing from August, September
and October until later grazing can be had in those months when little standing
forage is usually found. While standing fescue may not be quite the quality to
provide the sole forage for lactating cows, it can be a part of that ration. Further,
stockpiled fescue can be the sole forage for dry cows, and growing heifers in
deficit months.