|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TACTICAL FEED BUDGET** | | | | | | | | | | |
| **Scenario:** |  | | | | | | | | | |
| **Step 1 – Where are we now?** | | | | | | | | | | |
| **No. of animals (a)** | | **Liveweight (kg)** | | | **Current FOO (kgDM/ha) (b)** | | | **Pasture quality (MJME/kgDM) (c)** | | **Grazing Area (Ha) (d)** |
|  | |  | | |  | | |  | |  |
| **Step 2 – Where do we want to get to?** | | | | | | | | | | |
| **Time frame (days) (e)** | | | **Required liveweight gain (kg/day)** | | | | | | **Energy Requirement (MJME/day) (f)** | |
|  | | |  | | | | | |  | |
| **Animal feed requirement (kgDM/day)**  **(g) g = f ÷c** | | | **Herd pasture intake (kgDM/day)**  **(h) h = a x g** | | | | | | **Total timeframe pasture intake (kgDM)**  **(i) i = h x e** | |
|  | | |  | | | | | |  | |
| **Step 3 – How do we get there?** | | | | | | | | | | |
| *Future Growth* | | | | | | | | | | |
| **Month** | | **Days in month**  (j) | | | | **Pasture Growth rate**  **(kgDM/ha/day)**  (k) | | **Area (ha)**  (l) | | **Total grown/month**  **(kgDM)**  = j x k x l |
|  | |  | | | |  | |  | |  |
|  | |  | | | |  | |  | |  |
|  | |  | | | |  | |  | |  |
| Total Growth (m) | | | | | | | | | |  |
|  | | | | | | | | | | |
| **Minimum pasture cover (kgDM/ha)**  (n) | | | | **Provision from current pasture (kgDM)** (o)  o = (b – n) x d | | | | | | |
|  | | | |  | | | | | | |
|  | | | | | | | | | | |
| Provision from current pasture (kgDM) (o) | | | | | | |  | | | |
| Provision from future growth (kgDM) (m) | | | | | | |  | | | |
| Total pasture intake (kgDM) (i) | | | | | | |  | | | |
| FEED BALANCE (kgDM) = (o + m) - i | | | | | | |  | | | |
| **Step 4 – Options for achieving feed balance** | | | | | | | | | | |
|  | | | | | | | | | | |

**Converting pasture deficit into supplementary feed requirement**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Determine total energy shortage** | | | | |
| **Energy in pasture\***  **MJME/kgDM**  **(c)** | **x** | **Feed Balance Deficit**  **kgDM** | **=** | **Total energy shortage**  **MJME** |
|  |  |  |
| **Determine kgDM of supplement required** | | | | |
| **Total energy shortage**  **MJME** | **÷** | **Energy value of supplement**  **MJME/kgDM** | **=** | **Supplement required**  **kgDM** |
|  |  |  |
| **Determine ‘as bought’ amount of supplement** | | | | |
| **Supplement required**  **kgDM** | **÷** | **Dry Matter % of supplement** | **=** | **‘As Bought’ supplement required**  **kg** |
|  |  |  |

\* This figure comes from box (c) on the Tactical Feed Budget

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TACTICAL FEED BUDGET** | | | | | | | | | | | |
| **Scenario:** | 200 (300 kg liveweight start weight) steers, want to grow at 0.5 kg/day. 100 cow/calf units (cow 500 kg liveweight, calves start age 3 months) on 200 ha , and what impact would grazing to 1000 kgDM/ha have compared to grazing to 1200 kgDM/ha | | | | | | | | | | |
| **Step 1 – Where are we now?** | | | | | | | | | | | |
| **No. of animals (a)** | | **Liveweight (kg)** | | | **Current FOO (kgDM/ha) (b)** | | | | **Pasture quality (MJME/kgDM) (c)** | | **Grazing Area (Ha) (d)** |
| 200 steers  100 cow/calves | | 325  500 | | | 1400 | | | | 9 | | 200 |
| **Step 2 – Where do we want to get to?** | | | | | | | | | | | |
| **Time frame (days) (e)** | | | **Required liveweight gain (kg/day)** | | | | | | | **Energy Requirement (MJME/day) (f)** | |
| 90 | | | Steers 0.5  Cow/calf units 0 | | | | | | | Steers 60  Cow/calf units 132 | |
| **Animal feed requirement (kgDM/day)**  **(g) g = f ÷c** | | | **Herd pasture intake (kgDM/day)**  **(h) h = a x g** | | | | | | | **Total timeframe pasture intake (kgDM)**  **(i) i = h x e** | |
| Steers 60 ÷ 9 = 6.7  c/c units 132 ÷ 9 = 14.7\*\*\* | | | = 200 x 6.7 = 1340  = 100 x 14.7 = 1470 | | | | | = 1340 +1470 = 2810 | | = 2810 x 90 = 252,900 | |
| **Step 3 – How do we get there?** | | | | | | | | | | | |
| *Future Growth* | | | | | | | | | | | |
| Month | | Days in month  (j) | | | | Pasture Growth rate  (kgDM/ha/day)(k) | | | Area (ha)  (l) | | Total grown/month  (kgDM)  = j x k x l |
| March | | 8 | | | | 0 | | | 200 | | 8x0x200 = 0 |
| April | | 30 | | | | 10 | | | 200 | | 30x10x200 = 60000 |
| May | | 31 | | | | 15 | | | 200 | | 31x15x200 = 93000 |
| June | | 21 | | | | 10 | | | 200 | | 21x10x200 = 42000 |
| Total Growth (m) | | | | | | | | | | | 195,000 |
|  | | | | | | | | | | | |
| Minimum pasture cover (kgDM/ha)  (n) | | | | Provision from current pasture (kgDM) (o)  o = (b – n) x d | | | | | | | |
| at 1200 residual or 1000 residual | | | | @1200: (1400 – 1200) x 200 = 40,000 @1000: (1400 – 1000) x 200 = 80,000 | | | | | | | |
|  | | | | | | | | | | | |
| Provision from current pasture (kgDM) (o) | | | | | | | @1200 = 40,000  @1000 = 80,000 | | | | |
| Provision from future growth (kgDM) (m) | | | | | | | 195,000 | | | | |
| Total pasture intake (kgDM) (i) | | | | | | | 252,900 | | | | |
| FEED BALANCE (kgDM) = (o + m) - i | | | | | | | @1200 (40,000+195,000) – 252,900 = **- 17,900 (deficit) (17.9 TDM)^^^**  @1000 (80,000+195,000) – 252,900 =  **+ 22,100 (22.1 TDM)^^^** | | | | |
| **Step 4 – Options for achieving feed balance** | | | | | | | | | | | |
| \*\*\* Note: quick check using table 6.2 drought book, shows the cow/calf unit requirement of 14.7 kgDM pasture is in excess of maximum daily dry matter intake. Without supplementation, the cow will lose weight and may stop producing milk. The cow/calf units will need to be supplemented with a feed that has a higher energy value than the pasture, that is a supplementary feed with an energy value greater than 9 MJME/kgDM  ^^^Note: the deficit is the tonnage of feed short at the equivalent energy value of the pasture (9 MJME/kgDM). If purchasing supplementary feed of a higher energy value, this needs to be taken into consideration. See following page for proforma to convert pasture deficit into supplementary feed requirement. | | | | | | | | | | | |

***Converting pasture deficit into supplementary feed requirement***

Following on from the Tactical Feed Budget, the option of grazing the pastures down to 1200 kgDM/ha is selected in this case, resulting in an apparent deficit of 17,900 kgDM. It has been decided that pellets will be purchased to fill this feed gap. The pellets have an energy value of 12 MJME/kgDM and have a dry matter of 90%. How much pellets need to be purchased?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Determine total energy shortage** | | | | |
| **Energy in pasture\***  **MJME/kgDM**  **(c)** | **x** | **Feed Balance Deficit**  **kgDM** | **=** | **Total energy shortage**  **MJME** |
| 9 | 17,900 | 161,100 |
| **Determine kgDM of supplement required** | | | | |
| **Total energy shortage**  **MJME** | **÷** | **Energy value of supplement**  **MJME/kgDM** | **=** | **Supplement required**  **kgDM** |
| 161,100 | 12 | 13,425 |
| **Determine ‘as bought’ amount of supplement** | | | | |
| **Supplement required**  **kgDM** | **÷** | **Dry Matter % of supplement** | **=** | **‘As Bought’ supplement required**  **kg** |
| 13,425 | 0.9 | 14,917 |

\* This figure comes from box (c) on the Tactical Feed Budget

So it can be seen that if purchasing pellets that are 12 MJME/kgDM and 90% dry matter, 14.92 Tonnes would be required to fill the deficit as calculated on the Tactical Feed Budget.