



Issued: 11<sup>th</sup> April 2023



## IN BRIEF

### Weed Specialist, Pam Chambers (British Sugar) offers her thoughts to growers on herbicide use.

- Soil conditions are moist, so pre-emergence sprays are working well where applied.
- Crops drilled in early March have emerged, but frosts and wet conditions have made weed control decisions difficult.
- Weeds are also emerging so careful consideration needed to ensure good weed control without 'knocking' the beet during early growth stages.
- As temperatures warm up, crop and weed growth will be rapid, both will be more susceptible to herbicides. Pay close attention to rates, mixes and adjuvant oil use.



## ADVISORY

### March drilled crops and herbicide applications

Sugar beet drilled in early March have suffered and emergence has taken around 3 weeks, consequently the small beet often lacks vigour. Weeds have also emerged and do need controlling especially problematic weeds such as knot-grass which becomes difficult to control once they get past the first true leaf stage. Herbicide sprays applied to these early crops need treating with 'care' and holding sprays based on metamitron should be considered. The majority of metamitron products are suspension concentrate (SC) formulations containing 700 g/l of active ingredient (a.i.), well-known brands are Goltix 70 SC (ADAMA), Bettix Flo (UPL) and Clayton Devoid (Clayton Plant Protection). There are differences between labels so make sure these are checked, Table 1 shows information that appears on the authorisations for these three products, this information must be adhered to.

**Table 1. Metamitron product labels – important information**

Product Name	Max. Individual Dose L/ha	Max. Total Dose L/ha	Max No. Applications Allowed Post-em	Application Interval
<b>Bettix Flo</b>	3.0	5.0	N/S	N/S
<b>Clayton Devoid</b>	2.0	5.0	N/S	6
<b>Goltix 70 SC</b>	2.0	5.0	N/S	6

Metamitron is considered to be the safest active to use on beet and can be applied at any crop stage, **BUT** if the crop is under stress, avoid using in tank mix, use a vegetable rather than a mineral oil and don't include any other actives or trace elements. Adjuvants are supported and an 'old fashioned'

holding spray such as met amitron 1.7 l/ha + Adjuvant 1.7 l/ha can be useful where crop safety is of concern.

Where beet is more robust, and weeds emerged commence herbicide programmes as soon as possible. In recent herbicide trials phenmedipham + met amitron + ethofumesate + adjuvant applied as straights allow flexibility of rates according to weed size present.

### Sugar beet drilled from April onwards and herbicide decisions

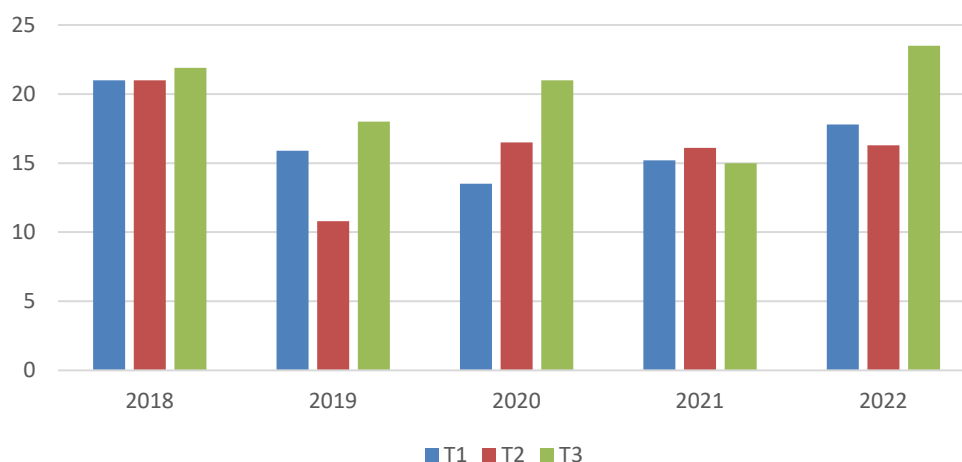
It is interesting to look back at drilling dates on the same farm. Table 2 shows information for a farm in Yaxley, Suffolk. This year the farm will host one of the BBRO demonstration sites, drilling has not yet taken place. Due to the later drilling this season it is likely that post-emergence herbicides will be pushed back but how late will depend on weather conditions, rainfall, and temperatures.

**Table 2. Drilling and spray timings, Yaxley, Suffolk**

Year (Location)	Drilling date	Spray Timing		
		T1	T2	T3
2016 Yaxley	03.04.16	30.04.16	09.05.16	26.05.16
2017 Yaxley	16.03.17	11.04.17	20.04.17	10.05.17
2018 Yaxley	17.04.18	09.05.18	21.05.18	30.05.18
2019 Yaxley	23.03.19	17.04.19	30.04.19	18.05.19
2020 Yaxley	02.04.20	03.05.20	09.05.20	02.06.20
2021 Yaxley	21.03.21	02.05.21	17.05.21	27.05.21
2022 Yaxley	21.03.22	19.04.22	05.05.22	23.05.22

In 2018 drilling at Yaxley was during mid-April, the same for many growers that year and most herbicide sprays were being applied during very warm conditions in May as shown in Graph 1 when crops and weeds were growing rapidly and were very 'soft'. In some situations, crop damage was experienced.

**Graph 1. Temperatures at spraying °C**



**Key points to consider as we go into another late drilling season are: -**

Variation between day and night temperatures are reduced as we go into later spray timings, so emergence and growth of weeds and crop are likely to be very quick and 'soft', especially if moisture is not a limiting factor.

Herbicides with contact activity (Table 3) will work well in warm and moist conditions so be careful with rates, tank mixes and the inclusion of adjuvant oils.

Consider using vegetable oils rather than mineral oils and where manganese is being included in tank mixes, omit the adjuvant oil. Do not use adjuvant oils if temperatures are likely to exceed 21°C.

Avoid spraying in the middle of the day if there is 0% cloud cover and relative humidity (R.H.) is high and make sure all tank mixes are supported by manufacturers.

Do not tank mix annual broad-leaved weed (ABLW) herbicides in with graminicides or insecticides.

**Table 3. ABLW herbicides with contact activity**

Active (s)	Residual	Contact	Post	HRAC
clopyralid		✓	✓	4
ethofumesate	✓	✓	✓	15
metamitron	✓	✓	✓	5
phenmedipham		✓	✓	5
triflurosulfuron-methyl		✓	✓	2

It is likely that spray operators will be under a lot of pressure with spraying this spring as everything comes at once, so be careful if advising on tank mixes and make sure full support is obtained from the relevant manufacturers.



## EVENTS

[Book for May Demo farm events](#)

**BEATING THE CHALLENGE**  
2023 BeetField events

Supporting growers to push the crop and gain rewards

British Beet  
**BBRÖ**  
Research Organisation

Morley Yaxley Fincham Brace-bridge

**May 2023 - 1 hour visits**  
16th - Morley 8:30, 9:30 or 10:30  
16th - Yaxley 14:00, 15:00 or 16:00  
18th - Bracebridge 8:30, 9:30 or 10:30  
18th - Fincham 14:00, 15:00 or 16:00

- Aphid and virus management
- On-farm monitoring - Beet moth, cercospora and more
- Soil score card - practical help
- 2024 Varieties in action

**Book: [www.bbro.co.uk/events](http://www.bbro.co.uk/events)**



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