

The Dosage Method – The Alternative Analysis Tool

“It is my belief that some thoroughbred race horses are just not built to win certain races. No matter what else may be in their favour, if they do not have the genetic make-up required for the rigors of a particular race they will struggle to succeed at the top level.”

The above is the opening paragraph to my own racing trends publication ‘Narrowing the Field – Using the Dosage Method To Win at National Hunt Racing’ and is a statement I fully believe the wider betting public should take great notice of.

The Dosage Method is an angle I utilise in great depth through my own service ‘Narrowing the Field’ and have explored in great detail on my own website and blog <http://www.narrowing-the-field.co.uk>

It was whilst searching for an edge to my own race betting and analysis that I came across the term ‘Dosage’ and more specifically the ‘Dosage Method’. Always eager to expand my racing knowledge I started researching this exciting method and after a few years of studying the subject and applying it to my own form study and betting it led me to pen the above opening statement; nothing I have seen since I implemented Dosage into my betting approach has made me think any differently. This is a method that relies upon breeding and blood lines, the fundamental pillar that horse racing is founded upon.

But what is the Dosage Method?

Some of you will have come across the method in the past; some of you may have heard of it but just don’t know what to do with it and some of you may never have even heard of it at all! One thing I think I can safely assume is that a majority of you are not using it in your day to day race analysis; hopefully after this series of articles that will all change.

A brief history of Dosage

Before I get stuck into the nitty-gritty of Dosage let me first give you a (very) brief history on the method.

Dosage had been around since the early 20th century when French researcher Lt. Col. J. J. Vullier published a study on the subject. Lt. Col. J. J. Vullier’s findings were subsequently modified by an Italian breeding expert, Dr Franco Varola, but it was not until the early 1980’s that dosage in its current form was developed. This improved version of Dosage was conceived by American scientist Steven A. Roman, Ph.D. His new approach to Dosage was supported by solid statistical data and quickly caught on in America. Steven A. Roman’s analysis was primarily centred on the Kentucky Derby and later the other major stakes races in America.

If you really want to delve into the deep depths of the Dosage method then I thoroughly recommend both Steven Roman’s web-site (<http://www.chefs-de-race.com>) and his excellent book on the subject (*Dosage: Pedigree and Performance*). Both of these resources formed the bedrock of my Dosage research and the web-site in particular is still one of my favourite racings sites to visit.

Dosage explained

What are Dosage ratings?

For those of you that have never seen a set of Dosage figures before then the following table is for you –

KATCHIT (IRE) b. G, 2003 **DP = 1-2-5-3-1 (12) DI = 0.85 CD = -0.08** - 28 Starts, 10 Wins, 8 Places, 3 Shows Career Earnings: £554,073

		NEVER BEND (USA)	NASRULLAH (GB)	b. 1940 [B]
	MILL REEF (USA)	b. 1960 [BI]	LALUN (USA)	b. 1952 *
	b. 1968 [CS]	MILAN MILL (USA)*	PRINCEQUILLO (IRE)	b. 1940 [IS]
DOYOUN (IRE)		b. 1962	VIRGINIA WATER (USA)	gr. 1953
b. 1985		KASHMIR (IRE)	TUDOR MELODY (GB)	br. 1956
	DUMKA (FR)	dkb/br. 1963	QUEEN OF SPEED (GB)	b. 1950
	b. 1971	FAIZEBAD (FR)	PRINCE TAJ (FR)	b. 1954
KALANISI (IRE)		dkb/br. 1962	FLORALIE (FR)	b. 1954
br. 1996		NIJINSKY (CAN)	NORTHERN DANCER (CAN)	b. 1961 [BC]
	GREEN DANCER (USA)	b. 1967 [CS]	FLAMING PAGE (CAN)	b. 1959 *
	dkb/br. 1972	GREEN VALLEY (FR)	VAL DE LOIR (FR)	b. 1959
KALAMBA (IRE)		dkb/br. 1967	SLY POLA (USA)	ch. 1957 *
b. 1991		RIVERMAN (USA)	NEVER BEND (USA)	b. 1960 [BI]
	KAREENA (IRE)	b. 1969 [IC]	RIVER LADY (USA)	b. 1963
	b. 1979	KERMIYA (FR)	VIENNA (GB)	ch. 1957
		b. 1973	EMBellIE (FR)	dkb/br. 1962 *

**Please note this is only a snapshot of the top half of Katchit's pedigree.*

This was taken from the www.pedigreequery.com web-site. I find this the best and most effective resource to obtain the figures from and the great thing about the site is its 100% free! What you should be concentrating on here is the top line of figures after the horses year of birth i.e. **DP = 1-2-5-3-1 (12) DI = 0.85 CD = -0.08**.

In basic terms Dosage ratings are numerical figures which indicate the **probable speed or stamina capabilities of a horse** based on the appearance of *influential sires* in its bloodline. An influential sire has been determined not by its own achievements on the race track but the proven, consistent ability and success of its offspring. This is based on the theory that certain stallions can have a sustained significant influence on thoroughbred racehorses for a number of generations. Essentially, Dosage ratings are a horse's genetic make-up expressed in figures.

When using Dosage as an analysis tool you need to be familiar with the terms Dosage Profile (**DP**), the Dosage Index (**DI**) and the Centre of Distribution (**CD**); but what exactly do these terms indicate?

The Dosage Profile (**DP**) is a five numbered figure relating to specific categories which is the totals of all the points gained from influential sires.

The Dosage Index (**DI**) is essentially the ratio of speed points to stamina points from the DP. The DI indicates a numerical figure which overall should give you an indication of whether a horse is genetically speed or stamina orientated.

The Centre of Distribution (**CD**) is a figure between -2 and +2 which indicates the distance a horse could potentially be successful over.

Overall these figures should enable you to calculate what a particular horse could achieve in a particular race over a specific distance.

What are Influential Sires?

To put it bluntly, without a strong and consistent talent pool of influential sires standing at stud the racing world would be a pale shadow of its current self. The Dosage method is centered on these ‘influential sires’ but what exactly are they?

A horse’s Dosage rating comprises figures based upon where influential sires appear in its four generation pedigree. As briefly introduced, an influential sire is determined not by its own achievements but the proven, consistent ability and success of its offspring.

At this moment in time there are 211 influential sires listed by Dr Roman (main developer of the Dosage method), calculated using numerical analysis of their offspring’s abilities. The sires on the list are referred to as Chefs-de-Race (Masters of the Breed). Stallions that have had fleeting success with their progeny are not categorised as Chefs-de-Race. A sire has to have shown consistent success at the top levels over a number of progeny to be included on this list. For example, Montjeu has produced a number of Group 1 winners in recent years but to be potentially considered as a Chefs-de-Race in the future he is going to have to continue to produce Group 1 winners.

Chefs-de-Race Categories

All stallions on the Chefs-de-Race list are assigned to one or two of the following categories:


BRILLIANT – INTERMEDIATE – CLASSIC – SOLID – PROFESSIONAL

These represent Speed (Brilliant) through to Stamina (Professional).

A sire that has been placed in the Brilliant section is one that produces runners that shine at shorter distances. The appearance of this sire will improve the foal’s Brilliant score (the first column in the DP).

A sire that has been placed in the Professional section (the last column in the DP) is one that produces runners who should show their best form over the longer distances.

The following table shows examples of actual sires from the Chefs-de-Race list and the categories they have been assigned -

	Category	Chefs-de-Race
Speed  Stamina	BRILLIANT	Peter Pan
	INTERMEDIATE	Indian Ridge
	CLASSIC	Roberto
	SOLID	Sea Bird II
	PROFESSIONAL	Ela-Mana-Mou

Depending in which generation of the horse's pedigree it appears, the stallion contributes a certain number of dosage points to its offspring.

- 1st generation (sire) = 16 points
- 2nd generation (grandsire) = 8 points
- 3rd generation (great-grandsire) = 4 points
- 4th generation (great-great grandsire) = 2 points

For example, Sadler's Wells in the 1st generation contributes more Dosage points than Sadler's Wells in the 2nd generation. This follows the long held theory that a sire's influence becomes reduced with each passing generation.

On occasions a stallion will be named in more than one category; Sadler's Wells is such a horse. His points have been distributed equally between Classic and Solid. For example, if he were to appear in a horse's pedigree in the 3rd generation (great-grand sire) he would be adding 4 points to the Dosage profile. Two of these points would contribute to the Classic score and the other 2 points would be added to the Solid score.

Please remember that to contribute Dosage points a stallion must be on the Chefs-de-Race list. If it is not on the list then no points will be contributed towards any offspring or future generations.

Example of Dosage in use

There are a number of ways in which you can use Dosage to aid and improve your betting approach. My preferred method, although by no means *only* method, is the trends approach, where I look back at the previous fifteen winners of a race to ascertain the Dosage ranges that past winners fall within.

Let's take a look at the following recent example, last season's Cheltenham Gold Cup, and narrow down the runners using Dosage (although I have simplified the process here this is still an excellent example of how Dosage trends and analysis can be used to our advantage) –

Horse	DP	Total	DI	CD	Run Style
PANDORAMA	3-2-4-0-1	10	2.33	0.60	CP
KEMPES	6-9-14-5-0	34	1.83	0.47	HU
IMPERIAL COMMANDER	3-2-4-2-1	12	1.40	0.33	CP
TIDAL BAY	3-2-4-2-1	12	1.40	0.33	HU
MIDNIGHT CHASE	3-1-7-4-1	16	0.88	0.06	FR
CARRUTHERS	2-1-11-6-0	20	0.74	-0.05	FR/CP
WEIRD AL	5-1-6-8-2	22	0.69	-0.05	HU/CP
LONG RUN	1-0-4-3-0	8	0.60	-0.13	CP/HU
KAUTO STAR	2-2-6-10-2	22	0.47	-0.36	CP
WHAT A FRIEND	2-1-8-2-7	20	0.54	-0.55	HU
CHINA ROCK	0-2-3-4-2	12	0.41	-0.67	CP
DENMAN	0-1-1-6-2	10	0.18	-0.90	CP
NEPTUNE COLLONGES	0-0-0-2-0	2	0.00	-1.00	FR

As you can see I have included each horse's dosage rating and running style after the horse's name and I have also sorted the runners in order from highest CD rating down to the lowest. The Dosage ratings can be found at www.pedigreequery.com and a horse's running style can be found at www.racingpost.com. You will have to do a bit of your own research to determine a horse's running style but this is not a lengthy process. I personally keep my own spreadsheets with lists of numerous horses' Dosage ratings and running styles to save me having to go back to www.pedigreequery.com and www.racingpost.com every time I want to study a race.

Once I have gathered the above information my next step is to look at the Dosage trends for the past 15 renewals of the Group 1 race; here is what the (basic) stats were telling me

- 10 of the last 15 winners had a DI of 0.89 or below
- 10 of the last 15 winners had a CD of -0.06 or below

** I must stress these were just the basic stripped down and strongest figures*

Only 5 horses from the 17 runner field pass both these trends (Neptune Collonges was dropped due to having only 2 Dosage points to analyse) –

Horse	DP	Total	DI	CD	Run Style
LONG RUN	1-0-4-3-0	8	0.60	-0.13	CP/HU
KAUTO STAR	2-2-6-10-2	22	0.47	-0.36	CP
WHAT A FRIEND	2-1-8-2-7	20	0.54	-0.55	HU
CHINA ROCK	0-2-3-4-2	12	0.41	-0.67	CP
DENMAN	0-1-1-6-2	10	0.18	-0.90	CP

With the help of two quick and solid Dosage trends we have narrowed the field from seventeen runners to a much more manageable five. From here you can study each of the runners individually and look at their own personal preferences and ideal conditions or you could even try to narrow the field further by using other race trends and statistical analysis.

In my NTF guides I use extended trends analysis as well as Dosage and by looking at the two analysis tools in tandem I came to the conclusion that LONG RUN held the strongest credentials for the Grade 1 chase. As the history books show LONG RUN stormed to an impressive victory followed home by DENMAN, KAUTO STAR and WHAT A FRIEND. By using Dosage we had narrowed the field from seventeen to a very workable five, four of which went on to fill the first 4 spots.

This is a simple, but effective, example of how Dosage can be used to narrow the field; by looking back at the previous 15 renewals we identified the Dosage ranges that a majority of the winners fell within and then applied it to this season's renewal, giving us our short list of five.

Ben Aitken – Narrowing the Field

This is great example of how I regularly use Dosage to 'Narrow the Field'; more information and analysis can be found at my own web-site – <http://www.narrowing-the-field.co.uk/> and you can also follow me on Twitter for regular updates - Twitter username **@Narrowthefield**.