

BACK² BASICS



Produced in association with Wales Archery

We all need a little help now and again. That's why we're running this series of back to basic guides by **Adam Lewis** of **Wales Archery**

THIS ISSUE: FLETCHINGS

START >>

Fletchings are a topic that we always get asked about in store. Fletchings are designed

to help stabilise, control and spin the arrow, and in this article we'll address what different types of fletchings do, as well as how the sizes and placement on the shaft impact the arrow flight.

Position

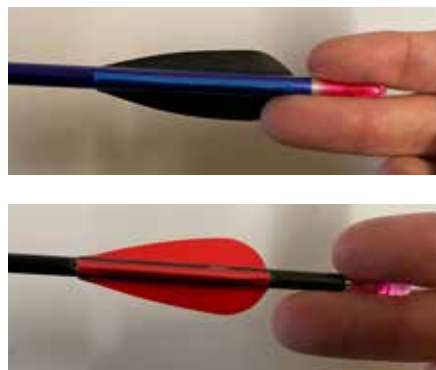
The position that an arrow is fletched is very important. In compound shooting with a release aid, we want the fletchings as close to the nock as possible as there is nothing to interfere with the fletchings. In recurve shooting, we need the fletchings to be as close to the nock as possible but not too close – the reason is because if we open our fingers and the fletchings are too close we can cause contact which can interfere with the shot cycle.

If the fletchings are too far down the shaft they won't help to control and steer the arrow. Usually a distance of around an inch from the nock groove to the start of the fletching is good. However, we all have different-length fingers so it is worth checking if your fingers are contacting the fletchings.

Style

Plastic vanes are one of the most popular choices of fletchings. Easy to fletch, waterproof and extremely durable, the plastic vane needs very little maintenance, making it an all-round good choice.

Feathers are used in nearly every single traditional shooting style, however you might be surprised to learn that many



Above: Style and substance: there's a fletching for every occasion

top archers, including multiple world championship gold medal winner Brady Ellison, use feathers for certain events, such as indoors.

Feathers used are from a specific part of the bird called the flight feathers which give the bird lift and manoeuvrability.

Feathers are lighter than plastic vanes and, due to the texture, have better air flow allowing the arrow more control. Feathers also hold their shape extremely well in both hot and cold conditions. Feathers are less critical if there is a clearance issue that needs addressing.

The downside to feathers are twofold: firstly, if an arrow comes into close contact

it can cause damage to the feather which then needs replacing. Second is that due to the nature and make-up of a feather, they are very susceptible to absorbing moisture. This not only makes the feather heavier, it also temporarily shrinks resulting in far less control and stability. This can be overcome with a waterproofing powder.

Spin vanes are designed to alleviate the 'archer's paradox' much more quickly than a plastic or feather vane. This results in far less drag force which allows the arrow to stabilise much more quickly and makes for tighter groupings. Spin vanes are also very light when compared to a plastic vane; they are however very fragile and can be high maintenance.

Angle

Straight fletchings offer maximum speed at the cost of reduced stability, which is compensated when shot over long distances as the arrow has time to straighten back up.

Helical fletchings offer maximum stability, allowing for greater accuracy due to the arrow coming under control faster. The downside to this is that the arrow does lose speed, and it can cause contact issues.

Size

Whether you are choosing plastic, feathers or spin vanes, the fletching will perform the same way whatever its size.

Smaller fletchings, such as a 1.75-inch, gives maximum speed at reduced stability as it takes the vane longer to control the arrow. This is the ideal length if you are shooting longer distances as it gives the fletchings time to straighten up the arrow.

Larger fletchings such as a 4-inch allows for maximum control and stability, straightening up the arrow as soon as possible, which creates a very forgiving arrow but at the cost of loss of speed.

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Indoors and out

Often you will hear of people having 'indoor' and 'outdoor' arrows. Not only might they have bigger diameter shafts but also different fletching styles. Now we'll look at what set-ups work best for the indoors vs the outdoors.

The indoor fletching choice that I think works the best, and the one many top archers use, is a 3-4inch feather. As discussed, the increased size helps to stabilise and control the arrow with the increased control from it being a feather. This all results in a much more forgiving

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shot: the arrow is travelling slower which isn't a problem when shooting shorter distances and there won't be an issue of moisture due to shooting indoors.

The outdoor fletchings are dominated by various different types of spin vanes, from the traditional RangeOMatic to the latest KSL. They all offer a similar effect and a similar size of between 1.75-2 inches. This size allows for maximum speed with the spin vane design helping to bring the arrow under control faster. This results in the fastest set-up for getting the distance with excellent control. The only drawback is that they can be high maintenance.